Listening and Speaking

Children are involved in listening and speaking through various classroom activities that include debates, role plays and discussions.

Learning Outcomes:

- engage meaningfully in discussions with teacher/peers on a range of topics;
- respond to specific questions and make comments and elaborate further on the topic.
- report on a topic or text, in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes,
- tell a story, or recount an experience in a logical and coherent manner, speaking clearly and at an understandable pace.
- show enthusiasm listening to English poems/songs/riddles /tongue twisters etc.
- identify key situations, share ideas and express opinions.
- take dictation of a seen passage.

Listening and Speaking		
Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
 Range of topics for discussion e.g. cleanliness, road safety, computers, games etc. Develop a topic from a variety of themes in an organized manner, using appropriate facts and relevant, descriptive details to support the main ideas or themes. Tell stories, recite poems, or recount/ narrate an experience in a logical and coherent manner. Speak clearly at an understandable pace. Listen to English poems/songs/riddles /tongue twisters etc. and identify the key situations get ideas and express opinions. Listen in context to e.g. announcements etc. school and outside, speech etc. Take dictation of a seen passage. 	 Reviewing and building on previous learning. providing a topic and encouraging children to have a discussion on it. e.g.: my favourite book / TV programme/ why recycle/Go green etc. Reading aloud/ playing audio recordings of poems, narratives, anecdotes, etc. and asking them to identify the main ideas (E.g. listen to an autobiography read aloud and create your own.) Listening in contexts, (e.g. at the airport, assembly etc.) Introducing words specific to particular fields through a variety of listening activities such as sports, cookery, music life skills etc. Reciting poems on different themes and encouraging children to recite/sing along. 	 Free online resources/audio/video clips/animated clips /poems/ narratives/autobiographies /biographies (5 Minutes to 20 Minutes. Can be separate or in series) Listening to Authentic themes / situations: Poetry, songs, stories, Group Discussion/ pair work Role play/dramatization. Posters/ Models/ Charts/advertisements etc.

Listening and Speaking		
Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
	 Providing opportunities and context to speak on a specific topic and listen to others' point of view. (e.g. Health and hygiene/ self-care/ positive body image / Road safety) Creating learning situations to listen to various announcements. Speech, conversation Giving dictation of a connected passage. 	

NOTE: The examples given above are intended merely as guidelines. The teachers are welcome to be as innovative as the classroom situation allows.

The individual needs of children with disabilities (CWD) ought to be considered and appropriate methodology and interventions adopted.

The activities suggested above are not necessarily restricted to listening and speaking. As the language teacher is aware, all four language skills are inter-related and often overlap.

Reading and Writing

Children read texts to identify and grasp the main idea for interpretation. They write paragraphs / letters on a variety of topics using a range of vocabulary.

Learning Outcomes:

Children will be able to:

- read texts with comprehension, locate details, identify/ locate the sequence of ideas and events, grasp the main idea in print and braille;
- relate ideas with their personal experiences including self-awareness;
- engage in reading beyond the text materials and enjoys reading;
- infer the meaning of unfamiliar words by reading the main context;
- use a dictionary / thesaurus (while using a computer) to look up the meaning of words;
- write at least two paragraphs of about 150 words at a more advanced level on any given topic;
- write narratives that recount a well-elaborated event or short sequence of events; that includes details to describe actions, thoughts, and feelings;
- organise and structure meaningful sentences in a sequential manner;
- use 'firstly', 'then', 'later', 'finally', etc. to link sentences to indicate passage of time and provide a sense of closure;
- draw from and write about their personal experiences or real life situations;
- use words and phrases to the class appropriate level, including those that convey emotions, actions, etc.;
- write a letter to a parent, friend, relative etc.

Reading and Writing

Suggested Areas/Content

- Seen and unseen texts on a variety of themes for extensive and intensive reading.
- Picture reading.
- > Beyond the text reading for pleasure e.g. magazines, stories, poems, narratives
- Use of dictionary both print and online.
 - Creative writing
 - Paragraph writing (150 words)
 - Personal experience
 - Story
 - Poem
 - Anecdote
 - Letter to a friend, relative etc.
 - (Informal letter)
- Organise and structure meaningful sentences in a

Suggested Transactional Processes

- Introducing different kinds of texts such as prose, poetry, play for reading with comprehension.
- Discussing / Explaining concepts such as rhyme, rhythm, simile in a poem.
- Providing additional material such as stories focusing on the needs and abilities of differently abled advertisements, notices, signboards, menus, posters etc. that go beyond the text.
- Facilitating reading of newspapers, magazines and children-chosen texts.
- Encouraging children to raise questions based on their reading habits.

Suggested Learning Resources

- Pictures
- Big books, Cartoons with audio or text.
- Self / teacher created materials.
- Magazines, newspapers.
- Activities/tasks for relating ideas of the text with their lives
- > Text types: Very short stories, poems and songs, texts with visuals, etc.
- Age appropriate magazines, newspapers, picture books, story books etc. (for reading and to connect it to their own experiences.)
- Realia/ Flashcards/ Posters/ puppets/ Charts etc. (to stimulate language.)
- Establish a class library/Book/Reading Corner

Reading and Writing		
Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
sequential manner. Use of 'firstly', 'then', 'later', 'finally', etc. to link sentences to indicate passage of time and provide a sense of closure.	 Creating situations/context to write letters /Poems/ list/ narratives/ e-mail/ etc. Encouraging children to follow the process approach of writing (brain storming, writing, reviewing, editing, rewriting). Providing rubrics / checklists to revise the written material. 	Locating from different sources reading material as per the interest (under supervision).

Grammar and Vocabulary in Context

Enrichment of vocabulary through introduction of a variety of idioms and phrases in context. Use of appropriate grammar in a range of written tasks.

Learning Outcomes:

- recognise and explain the meaning of common idioms, adages and proverbs;
- gain proficiency in the subject-verb agreement;
- use capital letters for appropriate words in titles, e.g. "the adventures of tom sawyer", "stopping by the woods on a snowy evening";
- learn the correct use of punctuations in dialogue;
- learn to use an apostrophe to show singular possession and know the difference between plurals and possessives;
- spell words correctly that are class appropriate, consulting references as and when required.

Grammar and Vocabulary in Context		
Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
 Common idioms, adages and proverbs. Subject-verb agreement. Punctuation e.g. Capital letters for appropriate words in titles, e.g. "The Adventures of Tom Sawyer", "Stopping by the Woods on a Snowy Evening". Apostrophe to show singular possession and knows the difference between plurals and possessives. Age appropriate vocabulary in context. Referencing as required. 	 Reviewing and building on previous learning. Providing examples of grammar in context to make children understand the various aspects of grammar. Creating worksheets for learners to use grammar in context. Providing audio - visual and verbal clues to reinforce the use of grammar and develop language skills. Creating activities/tasks to develop vocabulary in context. 	 Self / teacher created materials e.g. worksheets, activities. Audio, video, print / text. Authentic tasks and activities of short duration. (These will be used to lead to an engagement with words, word chunks, formulaic use collocations expressions in dialogue.) Word / Languages games. Realia/ Flashcards/ Posters/ puppets/ Charts etc. (to stimulate language.)

थीम 1: सुनना और बोलना

बच्चे भाषण, कहानी, नाटक, कविता और अब वक्तव्य आदि को ध्यानपूर्वक सुन कर समझते हैं **। सुनी गई सामग्री के मुख्य भाव और सार को स्पष्ट उच्चारण के साथ बताते हैं** । सामूहिक क्रियाओं के लिए निर्देशों को सुनकर क्रमवार उनका पालन करते हैं । सुनी गई कहानी, कविता और अपने अनुभवों को प्रवाहपूर्ण भाषा में सुनाते हैं ।

अधिगम उपलब्धियाँ (Learning outcomes):

- पूर्व कक्षाओं में अर्जित कौशलों का सहज उपयोग कर सकेंगे और दिन-प्रतिदिन के जीवन की आवश्यकताओं के अनुसार उनका विस्तार कर सकेंगे।
- 🗹 सरल वक्तव्यों और भाषणों को सुनकर समझ सकेंगे।
- किसी क्रियाकलाप को करने के लिए दिए गए क्रमवार निर्देशों को सुनकर समझ सकेंगे और उनका पालन कर सकेंगे। खेल के मैदान में सांस्कृतिक आयोजनों आदि पर निर्देश दे सकेंगे।
- समसामियक विषयों पर आयोजित समूह चर्चाओं में भाग लेंगे और अपने तर्कसम्मत विचार स्पष्ट रूप से प्रस्तुत कर सकेंगे।
- 🗹 प्रश्नों को ध्यान से सुनकर समझ सकेंगे और उनका तर्कसम्मत उत्तर दे सकेंगे।
- 🗹 किसी घटना, कहानी, प्रसंग विशेष का प्रत्यास्मरण कर सुना सकेंगे।
- 🗹 अधूरी कहानी को अपनी कल्पना, अनुभवों के आधार पर पूरा कर सकेंगे।
- 🗹 तुकबंदी वाली कविताओं को आगे बढ़ा सकेंगे।
- 🗹 समाचार पत्र के समाचार पढ़कर प्रातः कालीन सभा में सुना सकेंगे।
- 🗹 रेडियो / मोबाइल फ़ोन / कंप्यूटर आदि द्वारा सुनाए जा रहे संवाद को ध्यान से सुनकर अपने अनुमान से वस्तुस्थिति का पुरा परिचय दे सकेंगे।
- अपने सहपाठियों के घरों में तथा आसपास के पिरवेश में बोली जाने वाली अनौपचारिक भाषा तथा विद्यालय की औपचारिक भाषा के अंतर को पहचान सकेंगे।

सुनना और बोलना		
सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
 सरल वक्तव्य और भाषण कहानी / घटना / तथ्यों का संग्रह और प्रत्यास्मरण 	 अतिथियों को आमंत्रित करके वक्तव्य / भाषण का आयोजन करवाएँ । वक्तव्य / भाषण ऑडियो / वीडियो द्वारा भी 	 सी॰डी॰ ऑडियो / वीडियो
 कक्षा / प्रातः कालीन सभा में समाचारों का श्रवण दैनिक समाचार 	सुनवाएँ। कहानियाँ सुनाएँ / पढ़वाएँ। अधूरी कहानी को अपनी कल्पना और अनुभवों के आधार पर	वीडियो क्लिपिंगसमाचार पत्रबाल – साहित्य
 बाल-साहित्य से ली गई विभिन्न विषयों की कहानियाँ 	पूरा करने के लिए कहें। > बच्चों को पुस्तकालय का लाभ उठाने के लिए प्रेरित करें।	

सुनना और बोलना		
सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
 समसामयिक विषय जैसे – प्रदूषण, जल संकट, त्योहार विद्यालय के नियम, खान – पान की बदलती तस्वीर (फास्ट फूड), वायरल फीवर – बचाव के तरीके आदि पर चर्चा रोचक संस्मरण पाठों एवं उनसे इतर पठन सामग्री पर प्रश्न-उत्तर 	 कहानी को नाटक के रूप में प्रस्तुत करवाएँ। सामूहिक चर्चा का आयोजन करवाएँ। वीडियो क्लिपिंग दिखाकर भी सामूहिक चर्चा का अवसर दें। (छोटे समूह में, बड़े समूह में, चर्चा के अवसर दिए जाएँ)। बच्चों को अपने परिवार, मित्र या आस-पड़ोस के रोचक संस्मरण सुनाने के लिए प्रेरित करें। पाठों एवं उनसे इतर पठन सामग्री पर मौखिक प्रश्न-उत्तर सत्र का आयोजन करें। बच्चों द्वारा संकलित तथ्यों / कहानियों / प्रसंगों को साझा करने के अवसर प्रदान करें। समाचार पत्रों से प्रातःकालीन सभा में समाचारों का वाचन करवाएँ। 	

थीम 2: पढ़ना एवं लिखना (पठन एवं लेखन कौशल)

बच्चे हस्तलिखित और मुद्रित सामग्री को समझकर पढ़ते हैं। उसके मुख्य भाव तथा सार को अपने शब्दों में लिखते हैं। वे अनुच्छेद, औपचारिक और अनौपचारिक पत्र लिखने लगते हैं। **मुहावरों को समझकर उनका प्रयोग करते हैं। उनके** शब्द – <mark>भंडार में तेजी से वृद्धि होती है</mark>।

अधिगम उपलब्धियाँ (Learning outcomes):

- 🗹 पूर्व की कक्षाओं में अर्जित कौशलों का सही प्रयोग कर सकेंगे।
- 🗹 सुनी और पढ़ी कहानी से अपने संस्मरण जोड़कर लिख एवं पढ़कर सुना सकेंगे।
- 🗹 सुनी और पढ़ी कहानी को अपने शब्दों में लिख सकेंगे और पढ़कर सुना सकेंगे।
- 🔟 बाल साहित्य और पत्रिकाओं से कविताएँ, कहानियाँ, नाटक आदि विराम चिह्नों का ध्यान रखते हुए उचित बलाघात व अनुतान से पढ़कर सुना सकेंगे।
- 🔟 सुनी और पढ़ी कहानी के आधार पर पूछे गए 'क्यों' और 'कैसे' प्रश्नों के उत्तर लिख सकेंगे। स्वयं तरह 🗕 तरह से प्रश्न बना सकेंगे। जैसे –
 - 🕶 पठन क्षमता का आकलन करने वाले प्रश्न।
 - कहानी को विस्तार देने वाले प्रश्न।
 - 🕶 तर्क प्रस्तुत करने वाले प्रश्न।
- 🗹 अधूरी कहानी पूरी कर के लिख सकेंगे और पढ़कर सुना सकेंगे।
- स्थानीय समुदाय के किसी व्यक्ति (उल्लेखनीय) कारीगर, श्रमिक आदि से भेंटवार्ता के लिए प्रश्नावली तैयार कर सकेंगे और भेंटवार्ता की कार्यवाही को लिखित रूप से दर्ज कर सकेंगे।
- 🗹 दूसरों की लिखी हस्तलिखित सामग्री को पढ़ सकेंगे।
- वाक्य सरंचनाओं को समझ सकेंगे और दिए गए विषय पर अनुच्छेद तथा अनौपचारिक और औपचारिक पत्र लिख सकेंगे (वर्तनी और विराम चिह्नों का ध्यान रखते हुए) रचनात्मक लेखन कर सकेंगे।

पढ़ना एवं लिखना			
सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत	
 विभिन्न विषयों जैसे – साहस, देशभिक्त, वीरता, बिलदान, जीवन-मूल्यों, प्रेम, संवेदनशीलता आदि की कहानियों का पठन एवं लेखन स्थानीय समुदाय के महत्वपूर्ण व्यक्ति, कारीगर, श्रमिक आदि से भेंटवार्ता के लिए प्रश्न – निर्माण हस्तलिखित सामग्री पठन 	 विभिन्न विषयों की कहानियाँ विराम चिह्नों और उचित अनुतान के साथ बच्चों से पढ़वाएँ। कहानियों की घटनाओं, पात्रों आदि के प्रति प्रतिक्रिया प्रकट करने को कहें। कहानियों से संबंधित – प्रश्नों के उत्तर लिखने को कहें। कहानी के बारे में उनसे प्रश्न बनवाएँ। बच्चों से अधूरी कहानी को लिखकर पूरा करने के लिए कहें। 	 बाल साहित्य पत्र – पित्रकाएँ व्याकरण के चार्ट, कार्ड, पोस्टर सी०डी० ऑडियो / वीडियो भाषायी खेल – वर्ग – पहेली, शब्द – सीढ़ी आदि 	

पढ़ना एवं लिखना			
सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत	
संदर्भ में व्याकरण पूर्व की कक्षाओं में सीखी गई व्याकरणिक संरचनाओं की पहचान एवं प्रयोग की गतिविधियाँ संज्ञा के भेदों — व्यक्तिवाचक, जातिवाचक, एवं भाववाचक की पहचान सर्वनाम की पहचान एवं व्यावहारिक प्रयोग विशेषण एवं क्रिया का प्रयोग लिंग और वचन की पहचान एवं अनुप्रयोग और परिवर्तन अनेक शब्दों के लिए एक शब्द समानार्थी शब्द / अनेकार्थी शब्द	 सभी बच्चों से अपनी – अपनी कहानी का वाचन करवाएँ। भेंटवार्ता के लिए प्रश्न सूची तैयार करवाएँ। भेंटवार्ता से प्राप्त जानकारी बच्चों से लिखकर लाने को कहें। बच्चों को एक दूसरे की लिखित सामग्री पढ़कर सुनाने को कहें। पाठ्य – सामग्री में संज्ञा, सर्वनाम, विशेषण, क्रिया आदि शब्दों की पहचान करवाएँ और बच्चों से छाँटने के लिए कहें। छाँटे गए संज्ञा शब्दों के भेदों की पहचान करवाएँ। लिंग और वचन की पहचान करवाएँ। यह कार्य सिर्फ शब्दों से न करवाया जाए बल्कि समूचे वाक्य के आधार पर करवाया जाए। जैसे – एक लड़का मेरी कक्षा में आया। 	चित्रबुलेटिन बोर्ड	
 रचनाओं में आए मुहावरे रचनात्मक लेखन अनुच्छेद लेखन - लगभग 80 शब्द -	 एक लड़की मेरी कक्षा में आई। फूल पर तितली बैठी हैं। फूल पर तितली बैठी हैं। इसी प्रकार काल, क्रिया आदि का अभ्यास पूरे — पूरे वाक्यों में करवाएँ। अनेकार्थी शब्दों के अभ्यास वाक्य में करवाएँ जैसे - — मेरे मित्र ने फूलों से सुंदर हार बनाया। — वह खेल में हार गया। पाठ्य सामग्री में प्रयुक्त मुहावरों की ओर संकेत करें और बच्चों से वाक्य बनवाएँ जिसमें उनका अर्थ स्पष्ट हो। बच्चों को औपचारिक और अनौपचारिक पत्रों का प्रारूप लिखकर बताएँ। उचित विराम चिह्नों का प्रयोग करते हुए छोटे छोटे अनुच्छेदों में पत्र लिखने को कहें। बच्चों के लिखे पत्रों को बुलेटिन बोर्ड पर प्रदर्शित करें। चित्र देखकर उस पर एक अनुच्छेद लिखने के 		

पढ़ना एवं लिखना		
सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
 औपचारिक (प्रधानाध्यापक या कक्षाध्यापक को अवकाश के लिए प्रार्थना पत्र, गमला टूटने पर क्षमा – याचना पत्र) 	लिए कहें। कुछ शब्द देकर अनुच्छेद लिखवाएँ। कल्पनाशक्ति व सोच को विकसित करने वाले विषयों पर बच्चों से अनुच्छेद लिखवाएँ। बच्चे अपनी लिखित सामग्री पढ़कर सुनाएँ। बच्चों के लेखन को बुलेटिन बोर्ड पर प्रदर्शित करें।	

Theme 1: Numbers

The basis of understanding multi digit numbers lies in the understanding of the place value system. Thus, it is important to start with the concept of place value through manipulatives like place value cards, spike abacus, unifix cubes and expended and short form of numbers in class. International system of numeration is different than the one used in India. Children will understand that the difference lies in the process of grouping the digits called periods. They should be able to relate to various types of numbers learnt earlier i.e. counting numbers, common fractions and decimal fractions. A clear understanding about the relationship among these numbers will help them in further using these for problem solving strategies. Providing opportunities of using these in different contexts (familiar and unfamiliar) are important to develop strategies to deal with them.

Learning Outcomes:

- acquire understanding of 6 digit numbers and their use in daily life;
 - read and write numbers up to 6 digits (lac) using Indian system of writing large numbers;
 - use place value to write a number in expanded form and vice versa;
- compare numbers using place value and arranges them in ascending and descending order
 - use the given 6 digits to form the greatest and smallest number;
 - represent numbers (up to 39) by Roman Numerals:
- work with fractions:
 - identify half, one-fourth, three-fourths in a given picture (by paper folding) and also in a collection of objects.
 - represent fractions as half, one-fourth and three-fourths by using symbols $\frac{1}{2}$, $\frac{1}{3}$, $\frac{3}{4}$ respectively.
 - show the equivalence of $\frac{1}{2}$ and $\frac{2}{4}$ and other fractions.

Numbers		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 6 digits numbers (up to lac) using the Indian system of numeration. Place value and face values. Ascending and descending order of numbers. Greatest and smallest numbers from given digits. Roman Numerals using symbols I, V and X. Fractions as part of a whole and their representation as 	children to collect and discuss real-life context in which numbers up to a lac are used e.g. making large payments, huge crowd. etc.	 5-6 sets of number cards from 0-9 to make 6 digit numbers. Cuttings from newspaper/magazines about large numbers.

Numbers		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 number. Types of fractions: Like, unlike, unit, equivalent. Visual idea of equivalent fractions like ¹/₂, ²/₄, ³/₆, Addition of subtraction of like fractions. 	 Conducting activities so that children compare numbers using place value based and creating number sequence in ascending and descending order. Creating games/activities using number cards (0-9) to form 6 digit numbers (e.g. A number which has 8 at thousandth place & so on). Forming questions on the greatest and smallest numbers should be discussed with the strategy to do so. Introducing numerals from other Indian languages along with Roman numerals. 	

Theme 2: Number Operations

This theme aims at children gaining a broader and deeper understanding of the standard algorithms by having many and varied opportunities to use concrete materials such as place-value charts, unifix cubes and base ten blocks in problem-solving situations. The use of these tools will greatly enhance children' exploration of addition, subtraction, and multiplication involving regrouping, and multi digit division. Teaching the standard algorithms through problem solving using manipulatives will help children develop their conceptual understanding of the standard algorithms. Once children have a thorough understanding of the standard algorithms, it will enable them to work flexibly with algorithms and determine when their use is appropriate.

Learning Outcomes:

- apply operations of numbers in daily life;
- add and subtract numbers (up to 4 digits) with or without regrouping;
- solve problems involving addition and subtraction in different real life contexts presented through visuals and stories;
- construct and write multiplication table up to 10;
- multiply two and three digit numbers using standard algorithm and lattice algorithm;
- divide a given number by another number (single digit) by drawing dots and grouping, using multiplication facts and by repeated subtraction;
- apply four operations-addition, subtraction, multiplication and division in solving real life situations:
- frame word problems based on a mathematical statement;
- estimate sum differences and products of two or more given numbers without using paper/pen;
- multiply 2 and 3 digit numbers;
- divide a number by another number using different methods such as:
 - pictorially (by drawing dots)
 - equal grouping
 - repeated subtraction
 - establishing an inter-relationship between division and multiplication
- create and solve simple real life situations/ problems related to money, length, mass and capacity by using the four operations.

Number Operations		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Addition and subtraction	> Creating real life contexts involving	> Wooden sticks to
of numbers (up to 4 digits)	addition/subtraction of 4 digit	demonstrate
with or without	numbers Text based stories such may	multiplication table.
regrouping.	be used to practice solving such	Napier sticks for
▶ Construct of	problems.	multiplication.
multiplication table up to	▶ Encouraging and facilitating children	Geoboard and rubber
10.	to develop multiplication tables	band. (to demonstrate

Number Operations			
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources	
 Multiplication of two and three digit numbers using standard algorithm and lattice algorithm. Division in single digit another numbers. Application of four operations-in solving real life situations. Word problems based on a mathematical statement. Estimation of sum, differences and products of two or more given numbers and mental verification. 	rather than learning by rote. Introducing standard algorithm initially with one number in expanded form so that better understanding of standard algorithm is developed e.g. 23×3 = (20+3)×3=20×3+3×3. Using repeated subtraction to create intuitive understanding of the division algorithm. Encouraging children to create real life contextual problems based on mathematical operations (not more than two at a time) and solving them. Involving children in estimating sum/differences of two numbers to do calculation mentally. Demonstrating the estimation of	estimation of sum, difference of two numbers.)	
	sum, difference of two numbers by using the Geoboard and rubber band.		

 $\textbf{Life Skills:} \ solving \ daily \ life \ problems$

Theme 3: Playing with Numbers

The theme will promote children's exploration with various facts and properties of counting numbers which lead to many important aspects of the use of mathematics in daily life activities. It will encourage children to work with numbers, identify the patterns and make general rules. The concepts like factors, multiples, common factors and multiples lead to classification of numbers into various interesting groups. Children will be encouraged to work in groups to generalize their explorations about number properties and enjoy working with numbers.

Learning Outcomes:

- find out factors, prime factors and multiple of numbers;
- understand prime and composite numbers;
- understand divisibility by numbers;
- calculate HCF & LCM of numbers.

Playing with Numbers		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Factors.	> Encouraging children to	> Wooden sticks.
Multiples.	understand factors of given	Match sticks.
> Prime and composite	number.	▶ Broom sticks.
numbers.	> Conducting activities in the	
Test for divisibility by 2, 3, 4,	class so that children use	
5, 9, 10.	multiplication table for	
▶ Prime factors- By Factor tree	understanding multiplication	
method and Prime	facts.	
Factorization Method.	> Encouraging children to first	
▶ Highest common factor-	calculate common factors and	
listing method and Common	then to find the highest	
Division.	common factor.	
Lowest Common Multiples-	Guiding children to calculate	
Listing Method, Common	common multiples and then	
Division.	naming the smallest of them	
	as lowest common multiples.	

Theme 4: Geometry

In the primary grades, learning of mathematics encourages children to focus on geometric features of two-dimensional shapes and three-dimensional figures. Instructional activities provide opportunities for children to manipulate, compare, sort, classify, compose, and decompose these geometric forms. These types of activities help children to identify and to informally describe some attributes and geometrical properties of two-dimensional shapes and three-dimensional figures. In the teaching learning process children continue to learn about the properties of two-dimensional shapes and three-dimensional figures through hands-on explorations and investigations.

Learning Outcomes:

- acquire an understanding about shapes around them;
- identify the centre, radius and diameter of a circle;
- find shapes that can be used for tiling;
- draw cube/ cuboids using the given nets;
- show through paper folding/ paper cutting, ink blots, etc., the concept of symmetry by reflection:
- draw top view, front view and side view of simple objects;
- observe, identify and extend geometrical patterns based on symmetry;
- represent the collected information in tables and bar graphs and draws inferences from these;
- use tangrams to create different shapes;
- ille a given region using one and more than one shape;
- draw a circle-free hand, using a round object or a compass and identify centre, radius, diameter;
- explore reflective symmetry through ink blots paper cutting and paper folding;
- explore the area and perimeter of simple shapes;
- intuitively draw the plan, elevation and side view of different objects based on observation.

Geometry			
Key Concepts	Suggested Transactional Processes		Suggested Learning Resources
> Tangram shapes	> Using tangrams to create intuitional	>	Tangrams of 7 pieces.
> Tessellation: Tilling using one and more shapes	understanding of physical attributes of different 2D shapes.	>	Cardboards, tape cutters, glue sticks (for <i>creating</i>
Circle: Centre, radius, diameter.	Providing concrete shapes (created or procured) to children in groups to	>	tiles of different shapes) Colour paper, ink
> Relation between diameter	cover a surface with no gaps and		markers, scissors.
and radius of a circle	overlapping using one or two shapes.	>	Circular geoboard and
> Reflection symmetry	Discussion on which shapes tile and		rubber band.
> Area and perimeter of	why or vice versa may be done.		
simple shapes.	> Conducting paper folding activities		

Geometry		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Perspectives of shapes: Plan, elevation and side view. Introduction of terminology: Plane, point, line, line segment, ray, parallel. Lines, intersecting and perpendicular lines. 	 will go a long way to create a deeper understanding of a circle and various vocabulary related to it. Discussing symmetry in daily life context before introducing reflection symmetry. Conducting individual activities so that child has experiential learning about symmetry and line of symmetry. Creating activities for drawing the plan, elevation and side view of 3 D objects. Conducting quizzes to create an understanding of the different views of objects, houses, places etc. For example, showing top view of a chair or table and asking to guess what this object is. 	

Integration: Arts Education

Theme 5: Measurement

In this theme children will not only learn direct measurement but also develop the understanding of indirect measurements of time and temperature. These cannot be measured directly they require instruments that indirectly translate evidence of their presence into a measurable form. Children will be made aware about this. Previous learning had initiated children the learning of direct measurement i.e., by applying a unit directly to the object being measured. For example, to measure length, area or volume a specific unit is required. Selecting a unit is an arbitrary act and the units used are only conventions accepted by all to bring in uniformity for measurement.

Learning Outcomes:

- convert meters into centimeters & vice versa;
- solve problems involving lengths & distances in daily life contexts;
- use estimation and verification to find out the distance between two locations;
- use a balance to weigh different objects using standard weight like grams, kilograms etc. to different objects;
- <u>estimate and verifies the weights of different objects using a balance;</u>
- measure volume of different containers using containers marked with standard units of multi-litre and litre;
- correlate different units of standard measurement like millilitre and litre with different objects;
- stimate & verifies capacities of different containers by measurement;
- explore the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit like the number of books that can completely fill the top of a table:
- convert metre into centimetre and vice-versa;
- estimate the length of an object/distance between two locations, weight of various objects, volume of liquid, etc., and verifies them by actual measurement;
- solve problem involving daily life situations related to length, distance, weight, volume and time involving four basic arithmetic operations;
- read clock time in hour and minutes and expresses the time in a.m. and p.m.;
- relate 24 hr clock with respect to 12 hr clock;
- calculate time intervals/ duration of familiar daily life events by using forward or backward counting/addition and subtraction.

Measurement		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Conversion of units: meters into centimeters grams into kilograms, litre into millilitre & vice versa.	Organising activities for children to use appropriate units with lengths like smaller lengths using cm and metre/Km for large distances.	Measuring flasks with different markings for measurement.Shapes of cube, cuboid.
> Solve problems involving lengths/distances, weight/ mass, volume/capacity in daily life contexts using four operations.	 Creating real life contexts for solving problems involving various units of lengths. Emphasizing on estimation skills and its development through activities. Creating contexts in which children 	Toy clock prepared by children (to read time in hours, minutes, seconds).
Estimation and verification of length, weight, volume	use standard wrights to find out the weights of different objects.Asking children to have collection of	
Conversion of days, hrs and minutes (Bigger to smaller units and vice versa).	containers/pouches so as to discuss different things which are measured in milliliters and liters. Some of these containers may be used in	
Approximate time elapsed through word problems.	 conjunction with standard measures. Using of toy clocks/ prepared by children or other clocks in the classroom or at home to read time in hours, minutes and seconds. 	

Integration: Science (Measurement)

 $\textbf{Life Skills:} \ solving \ daily \ life \ problems$

Theme 6: Data Handling

This theme will enable children to discover and learn varied mathematical ways of collecting and using information. In this class, the emphasis is given to more efficient ways of representing data by pictures and graphs. The reading and interpretation of graphs is further enhanced to inculcate the data handling skills. Children will also be encouraged to draw their own graphs and pictures for the data collected by them as they will be in a better position to do so.

Learning Outcomes:

Children will be able to:

represent collected data in pictographs using stickers, pictures etc.;

read bar graphs and make observations based on more or less.

Data Handling			
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources	
Pictorial representation of the raw data.Interpretation of bar graph.	Taking up data handling activities (slightly more complex) for representation	Coloured papers, glue sticks, markers, stickers of different objects.	
	in different graphical forms.Asking children to do simple graphical data representation	Cuttings of pictographs, bar charts, etc. from newspapers, magazines.	
	from newspapers/magazines and interpreted in the class along with discussions on it.	Videos and PPTs (of simple data, findings that are presented in graphs).	
	Organising group projects involving children in focusing on collecting data,		
	interpreting it and then pictorially representing the same in terms of a bar graph.		

Integration: Arts Education

Life Skills: Interpretation and analysis

Theme 7: Patterns

The aim of this theme will be to make children aware of and practice how to find patterns, extend them and express in various ways thereby enabling them to initiate the process of thinking towards generalizations which is termed as algebra in upper primary classes. The decimal system (base 10 place value system) has its base on patterns and their further extension from one to tens to hundreds to thousands . . . Similarly, characteristics of shapes and figures are generalized on the basis of patterns.

Learning Outcomes:

Children will be able to:

- observe and identify patterns with more than one characteristic, like growing and reducing patterns:
- create a rule based on observations for extending the pattern in shapes and numbers.

Patterns		
Key Concepts	Suggested Transactional	Suggested Learning
	Processes	Resources
Growing and reducing	> Planning activities around	> Shapes, coloured papers,
patterns.	patterns in which children are	stamping tools, stamp pads,
Rule to extend a growing/	able to formulate a rule and	ink, water colours, vegetables
reducing pattern in shapes	verify it for the extension of	etc.
and numbers.	pattern.	

Integration: Arts Education

Life Skills: Logical thinking



Theme 1: Human Body: Food we Eat

The underlying aim of this theme is to provide information about and discuss the various components of food and also develop an awareness regarding the importance of eating a balanced nutritious diet. The content would further help in developing skills such as, i.e., classification, and sensitivity towards environment and sensitivity towards wastage of food.

Learning Outcomes:

- discuss and share various kind of food items used by a family on various occasions;
- list out food items based on 'energy giving', 'body building' and 'protection from diseases';
- classify food items into various components based on their function and cite examples of each component of food;
- we explain the need for balanced diet in their own words;
- discuss the need of each food component for healthy living;
- infer why different groups of people require different amount and kinds of food (child, adult, elders, etc.);
- suggest various ways to avoid food wastage;
- appreciate the need and importance of plants/ environment in our life;
- develop a sensitivity towards plants and the environment.

Human Body: Food We Eat		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Revisit concepts/ skills of learnt in Class III. Food for energy, for work, food for growth (body building), food for protection from diseases. Components of food: Carbohydrates, Proteins, Fats, Vitamins, Minerals, Water and roughage as essential components. Examples of each group of food component. An idea of a balanced diet. Care of food to avoid wastage.	 Revisit concepts learnt in Class III and build on previous learning. Providing opportunities to children to share their personal experiences about the food they generally eat, what they like and do not like, different kinds of food available around them etc.; Providing opportunities to children to observe various kinds of food items, and list out those that provide energy, vitamins, minerals, body building/wear & tear (actual/visuals); Organizing group activities to classify food items based on their functions (energy giving, body building and protection from diseases); Showing documentary films/charts on balanced diet and later organizing a discussion; Conducting individual activities by 	 Live experience of children related to food. Various kinds of food items (actual). Picture cards of different food items and their role. Documentary film on a balanced diet. Doctor and/or Dietician. Charts and visuals on food items. Magazines describing more information on food items (food of children, adults, elders). Children's portfolio Children's drawings. Worksheets provided/prepared by the teacher.

Human Body: Food We Eat		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	 asking each child to make a menu of one week keeping the need for a balanced diet in view (under supervision of elders). Discussing / interacting with the Dietician. Assigning individual/group projects to children on:	

Integration: Languages, Health and Physical Education, Social Studies (Our State - Agriculture (Types of Crops))

Life Skills: Sensitivity towards plants/environment, appreciating the value of avoiding wastage of food.



Theme 2: Human Body: The Teeth

The main focus of this theme is to create awareness regarding the various kinds of teeth in human beings and the importance of dental care and regular check-ups. The theme will also focus on the need for daily brushing to keep teeth healthy and strong for healthy living.

Learning Outcomes:

Children will be able to:

- identify and name the different kinds of teeth in human beings;
- draw pictures of each kind of tooth and label the parts of a tooth;
- discuss the need for various kinds of teeth in human beings and explain their functions;
- infer why the old people, adults and children have different number of teeth;
- demonstrate healthy habits related to taking care of their teeth;
- give reasons why the gums and teeth get spoilt/damaged;
- suggest ways to keep teeth and gums healthy and strong;
- appreciate the importance of regular check-up of teeth;
- relate healthy food habits with the development of healthy teeth and proper brushing.

Human Body: The Teeth		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Kind of teeth in the mouth and location. Structure and Functions of each kind of tooth. Diagram with labelling of parts of a tooth, number of teeth of each kind in: infants and adults. Care of Teeth and Gums: Causes of cavities/ deficiencies and steps to prevent them. Need for regular check-up to keep teeth healthy; importance of healthy dental care habits. Role of food in the development of healthy teeth and gums. 	 Providing opportunities to children to share their personal experiences (when did milk teeth first appear, how many teeth do they have, etc.) Organizing simple activities individually and in small groups with children such as: Counting one's own teeth and sharing with the peer group; Visiting a dentist/ inviting a dentist to conduct a question answer session in the class; Organizing discussion in small groups on care of teeth; Providing opportunities to draw pictures of kinds of teeth and labelling them; Making models of various types of teeth/steps showing the process to clean teeth followed by group activities to demonstrate healthy ways of brushing one's teeth. Maintaining children's portfolio to keep their medical report for regular check-ups. Discussing / interacting with the Dentist. 	 Children's own experiences. Tooth brush, Tongue cleaner Pictures on the process of cleaning the teeth, tongue etc. Film on care of teeth. Magnifying glass to observe teeth/gums. Medical reports of children.

Integration: Health and Physical Education **Life skills:** Healthy habits for a healthy living

Theme 3: Human Body: The Digestive & Excretory Systems

The main objective of this theme is to create an awareness and understanding regarding the functioning of the digestive and the excretory systems in the human body. The theme also aims at to promoting healthy habits for healthy living. While transacting this theme, the concepts covered in this theme may be related with the themes 'Food we Eat' and 'The Teeth' to develop a better understanding on related concepts.

Learning Outcomes:

Children will be able to:

draw and label parts of the digestive system;

name and identify organs of the digestive system;

discuss the functions of the digestive system in the human body;

we explain the functions of each digestive organ in his/her own words;

give reasons for chewing of food for better digestion;

name and identify organs of the excretory system;

explain and functions of each organ of the excretory system;

draw and label parts of the excretory system;

discuss the need for the excretory system in the body;

identify various habits that help to keep the digestive and excretory organs healthy.

Human Body: The Digestive and Excretory Systems		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Organs of the digestive system (mouth, food pipe, stomach, liver, small and large intestine, rectum, anus). Functions of various organs in digestion, need for chewing food well, and for regular bowel movements. Need for water. Organs of the excretory system and their functions. Healthy habits related to digestion and excretion. 	 Providing opportunities to children to share their own experiences. Drawing attention to the various organs in a model/chart of the digestive and excretory systems. Opportunities to draw pictures of both the systems and labelling the organs in both the systems. Discussing the importance of water in the process of digestion and excretion. Discussing the functions of the different organs of the digestive and excretory systems, through models/charts. Discussing healthy food habits related to digestion and excretion and relating them with the children's own experiences 	 Pictures/charts of the digestive and excretory systems. Models showing various organs of digestive and excretory systems. e-programme/content on digestive/excretory systems. Cut out of the human body locating places of various organs of both the systems. Diagrams on the digestive and excretory systems made by children. Discussion on junk and healthy food items

Integration: Languages, Health and Physical Education.

Theme 4: Adaptation in Animals

The theme 'Adaptation in animals' would discuss need for adaptation in animals by referring to the different habitats. The theme would also discuss adaptations seen in the bodies of herbivores, omnivores and carnivores. Some key concepts such as need for adaptation, reasons for adaptation in animals would also be discussed to create awareness amongst children by using various examples.

Learning Outcomes:

Children will be able to:

discuss the need for adaptation in animals to survive in their different habitats;

enlist reasons of adaptation in animals: on land, in air and in water;

give examples of adaptations of animals: on land and in water;

relate modification of body parts in various animals due to food habits (herbivores, carnivores, omnivores);

give examples of herbivores, carnivores and omnivores;

develop empathy, love and concern for animals.

Adaptation in Animals		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Adaptation in animals. Need for adaptations in animals. Reasons of adaptations. Examples of adaptations in animals: on land, in water. Adaption in modification of body parts in herbivores, carnivores, omnivores. Examples of each. Care and concern for animals 	 Sharing/listening to the experiences of children related to adaptation in animals. Showing a film/picture and then creating situations to identify adaptations in various animals have. Assigning project work to children in groups/individually to develop charts depicting adaptation in animals due to water, land, food habits; Assigning Project work to children in groups /individually to develop scrap books on adaptations in animals. 	 Pictures of animals having adaptations. Flash cards. Digital images (in animals). Web map of animals showing adaptations on land. Web map of animals showing adaptations in water. Charts prepared by children. Documentary film on adaptation in animals.

Integration: Languages, Health and Physical Education, Social Studies (Our State-Landforms,

Climate, vegetation)

Life Skills: Care and concern for animals

Theme 5: Adaptation in Plants

The theme 'Adaptations in Plants' is expected to provide awareness and information regarding the need for adaptation in plants on land, in water and due to variation in habitat, along with examples. The theme would also be expected to develop skills related to observation, concern and care for plants.

Learning Outcomes:

Children will be able to:

discuss the need for adaptation in plants to survive in their habitat;

enlist reasons of adaptations in plants on land, water, desert and hilly areas;

give examples of plant adaptations on land, water, desert and hilly areas;

draw pictures of various adaptations in plants.

Adaptation in Plants		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Need for adaptation in plants. Examples of adaptation of plants on land with examples. Examples of adaptation of plants in water with examples. Examples of adaptation of plants in desert with examples. Examples of adaptation of plants in hilly areas with examples. 	 Sharing/listening to the learning experiences of children related to adaptation in plants. Showing various plants having adaptations due to their habitats. Creating situations to identify various other plants having (after seeing pictures/films) adaptations. Assigning project work to: develop charts depicting adaptation of plants in different habitats i.e. water, land, develop scrap book on adaptation in different plants with examples Drawing of pictures by children of different adaptations seen in plants. 	 Pictures. Flash cards. Digital images (various plants). Web map of plants showing adaptations. Examples of adapted plants. Charts prepared by children. Documentary film on adaptation in plants.

Integration: Languages, Social Studies (Our State-Landforms, rivers, climate, vegetation)

Life skills: Concern for the environment

Theme 6: Plants in the Surroundings and Environment

The aim of this theme is to acquaint children with the classification of plants and functions of different parts of plants. The functions of leaves along with the processes of transpiration and photosynthesis will also be discussed in a simple manner. The theme would also highlight the significance of plants in our lives by taking different examples from children's daily lives.

Learning Outcomes:

Children will be able to:

identify plants as herbs, shrubs and trees;

identify the kind of roots seen in plants (through observation);

differentiate between tap and fibrous root (through observation);

cite examples of plants with the tap and fibrous root systems;

draw pictures and label each kind of root system;

identify variations in leaves (observation);

discuss the process of photosynthesis in their own words (simple non-technical language);

demonstrate presence of iodine in a leaf through a simple experiment (with support of elders).

Plants in the Surroundings and Environment		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Parts of plants and their uses (Revisiting earlier concepts). Roots: kinds of roots, their functions and examples. Shoots: functions of the stem. Functions of the leaf: Photosynthesis, transpiration process (in simple language). Iodine test for starch in leaves. Products obtained from plants such as food items, wood, coir, rubber, fibres. 	 Providing opportunities to observe various kinds of plants and categorizing them as herbs, shrubs and trees. Drawing pictures of leaves and colouring them. Showing through simple experiments different functions of the leaf (showing stomata, green pigment) to explain transpiration, photosynthesis (in simple language using non-scientific terms). Conducting simple experiments/activities (hand lens) to locate stomata on the surface of leaf Providing opportunities to children to discuss various uses of plant products in our life, with examples Conducting experiment to demonstrate the process of photosynthesis Conducting experiment showing presence of starch in leaves using iodine test Providing opportunities to appreciate the significance of plants in our life. Creating a herbal garden. 	 Various kind of leaves, different parts of plants Plant products-wood, coir, rubber. Hand lens. Apparatus required for experiments on photosynthesis and presence of iodine in leaves. Visuals /videos on the use of plants. Collection of products of plants. School's herbal garden.

Life Skills: Sensitivity towards plants and environment.

Theme 7: Air

'Air' is an important component for our life. Many activities are carried out with the help of air. This theme will help to develop clarity in children regarding properties of air, besides discussing the causes of air pollution and remedies for the same. The theme is also expected to develop experimental and observational skills.

Learning Outcomes:

Children will be able to:

- give reasons why air is important for living beings;
- demonstrate some properties of air through simple experiments (air has weight, occupies space, expands and has no colour);
- demonstrate the process of inhalation/exhalation of air;
- discuss causes of air pollution in the environment / surroundings;
- suggest ways/remedies to reduce air pollution in the environment;
- show concern about the environmental activities which cause air pollution.

Air		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Revision of Class III-Matter Some properties of air i.e., occupy space, weight, expands, no colour. Composition of air (gases + water vapour). Process of breathing and burning. Causes of air pollution – dust, smoke, spitting (germs/bacteria, Virus), preventive measures to keep air clean. 	 Revisiting concepts learnt in the earlier classes. Building on children's earlier learning. Conducting simple experiments to demonstrate that air has weight, occupies space, air expands. Arranging live demonstration to show the process of inhalation/ exhalation of air by lungs. Arranging a class activity for all children to demonstrate the process of breathing and deep breathing for healthy living. Organizing group discussions to identify causes of air pollution. Assigning projects (group work) to children to list down ways to prevent air pollution. Facilitating origami activities with children like making kites, aeroplanes, etc. Decorating the classroom by making small kites. 	 Apparatus /objects required to conduct experiments. Project work report on causes of air pollution. Project work report on ways to prevent air pollution. Origami material.

Integration: Languages, Health and Physical Education, Social Studies (Pollution- its impact on the environment, The Earth- Atmosphere)

Theme 8: Materials and Solutions

The theme 'Materials and Solutions' is expected to develop in children an understanding of the meaning 'solute', 'solvent' and 'solution' through daily life examples. The theme would also deal with various methods of separation of insoluble material from water/liquids.

Learning Outcomes:

- discuss/share examples of solvent, solute and solution in day-to-day life;
- explain each term in their own words;
- conduct experiments to make solutions by using solute and solvent;
- identify various methods of separation of solute and solvent from solution;
- distinguish between the methods of sedimentation, filtration and evaporation;
- give an example of the methods of sedimentation, filtration and evaporation;
- differentiate between soluble and insoluble substances in liquids;
- cite examples of soluble and insoluble substances.

Transactional Suggested Learning
cesses Resources
I s s s e a e n s s t ra c i a e t a e

Theme 9: Light

The expectation of this theme is to create awareness about various sources of light in the environment and simple properties of light, by taking examples from daily life. The theme is also expected to provide an understanding of how a shadow is formed and various uses of natural sources of light. The theme would also focus on how to save and conserve light energy in our day-to-day lives.

Learning Outcomes:

Children will be able to:

identify various sources and uses of light in the environment;

distinguish between natural and artificial sources of light;

cite examples of natural and artificial sources of light;

appreciate the use of natural source of light in our day-to-day life;

differentiate between luminous and non-luminous objects;

differentiate between transparent, translucent and opaque objects in the surroundings;

ite examples of each type of object, i.e. transparent, translucent and opaque;

explain the process of shadow formation in simple language.

Light		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Source of light: natural and artificial. Examples of sources of natural and artificial light. Luminous/non-luminous objects. Properties of light. Transparent, translucent and opaque objects. Examples of each category of objects. Uses of these objects in daily life. Formation of shadows (how a shadow is formed - not in technical terms). 	 Creating situations for sharing personal experiences of children and discussing them. Demonstrating luminous and non-luminous objects (plain paper and paper with oil drop). Initiating discussion, asking, questions related to light and its properties, showing simple activities/experiments. Organizing activities to identify different objects as transparent, translucent and opaque. Conducting experiments to demonstrate how shadow is formed. 	 Pictures/live examples of various sources of light. Objects depicting transparent, translucent, opaque features. Photographs/Pictures on the process of shadow formation.

Integration: Social Studies (Motions of the Earth)

Theme 10: Measurement

The theme 'Measurement' is expected to develop an awareness and understanding of the need for a unit of measurement to explain any object, process and phenomenon. The theme would also discuss various measuring instruments used in daily life. The emphasis of this unit is not only to develop scientific understanding but also to create a functional understanding of measurement in children.

Learning Outcomes:

Children will be able to:

appreciate the need for measurement of various things/phenomenon;

identify various instruments used for measurement;

differentiate various instruments based on their uses in daily life;

give examples of unit of measurement of some objects;

it cite examples of activities where unit of measurement is required.

Measurement		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Need for measurement Examples of measurement in daily life (buying goods, watching time) Simple description of instruments used for measurement (ruler, tape, weighing machine, thermometer, clock) Use of each instrument, how to read/use them. 	 Providing opportunities for discussion, interaction among peer group; child and teacher. Creating situations in the classroom for questioning, making questions. Demonstrating each instrument to observe and describe. Discussing uses of each instrument in daily life. Demonstrating 'How to use' 	 Discussion/question answer interaction among children and teacher Instruments used for measurement (scale, tape, weighing machine, ruler, clock, etc.) Examples/situations where unit of measurement is required Children's drawings.
	with instructions.	

Integration: Mathematics (Measurement)



Theme 11: Push and Pull

In this theme, children will learn that pushes and pulls are examples of Force which can change the shape/ direction of an object. Children will also be familiarized with the various kinds of forces experienced in day-to-day life.

Learning Outcomes:

Children will be able to:

discuss examples of push and pull seen in day-to-day life;

differentiate between push and pull and give examples of each;

describe push and pull in their own words (not definition);

identify various kind of forces seen in day-to-day life (muscular, gravitational, magnetic, frictional);

explain each force in their own words;

cite examples of each force by relating it with daily life;

demonstrate push and pull situation in a group activity (with safety precautions).

Push and Pull		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 The concept/ meaning of push and pull and difference between the two; Examples of push and pull. Force: meaning in simple terms, changes shape of objects and direction; Meaning of various types of forces – muscular, gravitational, magnetic and frictional. 	 Showing and discussing the difference between push and pull and citing examples of each in groups; Sharing/showing push and pull situations as a demonstration activity and later involving students to do it in groups; Demonstrating various kinds of forces through simple activities, Organizing group activities for demonstration of various kinds of forces by children and explaining them in their own words 	 Apparatus/Objects to demonstrate push and pull Pictures of examples of push and pull in real life situations.

Integration: Physical Education.



Theme 12: Friction as a Force

In this theme, children will build on their previous knowledge of Forces and learn more about Friction as a force and the role it plays in our lives. The theme will focus on uses of friction and also on concept formation by using simple examples.

Learning Outcomes:

Children will be able to:

ite examples of friction observed in daily life and explain friction in their own words;

explain uses and harmful effects of friction in daily life;

conduct simple activities/experiments demonstrating friction.

Friction as a Force		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Friction – meaning, concept. How to reduce friction (oil, powder). Uses of friction. Harmful effects of friction. Examples of friction. 	 Providing opportunities to children to discuss / share their experiences. Conducting activities / experiments that demonstrate friction. Creating situations to demonstrate friction on various kinds of surfaces. Asking children to identify situations where friction may be harmful. 	 Children's experiences. Oil, powder and other objects that can illustrate friction. Different surfaces Playing Carom Board.



Theme 1: The Story of the Past

"Story of the Past and Evidences in History" enables children understand the impact of past events in today's context. They learn to appreciate the rich heritage and traditions based on historical facts and evidences. Interesting pedagogies can be employed to familiarize them with the work of both historians and archaeologists.

Learning Outcomes:

Children will be able to:

- discuss the role and significance of historical events in today's context;
- reflect orally and in writing on historical events;
- differentiate between ancient, medieval and modern periods of history;
- differentiate between archaeological and literary sources;
- discuss the importance of preservation of sources to know history;
- differentiate between the job of a historian and an archaeologist.

The Story of the Past and Evidences in History **Suggested Learning Key Concepts/Concerns Suggested Transactional Processes** Resources Story of the Past -Explaining what history is and asking Pictures and children to relate their own past documentaries of early History The need to study experiences and reflect on how it has man. influenced them today. History Clay Tablets and stick to Organising a discussion on the ▶ Need to significance of learning history. write with compartmentalise Asking children to have interactive History into Ancient, Videos on archaeological Medieval and Modern sessions with their grandparents to periods. share their past experiences. Then, sites and remains of past encouraging children to talk about **Evidences in History –** Old newspaper for papertheir family history. **Sources of history** Discussing the needs and various machine. Archaeological sources. ways of compartmentalising history Flashcards, pictures and Literary sources: Books by historians to facilitate the learning charts depicting buildings and paper records. of the topics. and monuments. Need to preserve Showing videos of manuscripts and sources, job of a archaeological sources. historian and of an Discussing the importance of Collection of old coins. maintaining records in terms of their archaeologist. notebooks, the class attendance Collection of stamps. registers and school display boards. Amar Chitra Katha. Encouraging children to talk to their elders about carefully preserving family records and important documents. Organising trips to local monuments, historical places or a museum. Showing a video about how an

The Story of the Past and Evidences in History		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	 archaeologist gathers information through archaeological sites and remains. Facilitating role play to differentiate between what a historian and an archaeologist does. Displaying and studying of old coins. Displaying and studying of old and new stamps. Organising and Providing opportunities for: Writing on a clay tablet/ mud Making handmade paper through paper machine, and preparing a manuscript Matching game of pictures and names of monuments Coin rubbing and taking impressions of it on the paper 	

Integration: Languages
Life Skills: Care and appreciation of Cultural Heritage



Theme 2: Almanac

'Almanac' highlights the importance, significance and types of calendars. Sequencing of events and marking important dates on the time line will further enrich children with an understanding of the past.

Learning Outcomes:

Children will be able to:

differentiate between the Gregorian and Saka calendars;

draw a timeline and mark AD (CE) and BC (BCE) on it; design a calendar on the basis of their understanding of the rules;

sequence events and mark them on a timeline;

identify and mark important dates on the school calendar.

Almanac		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
 Gregorian calendar. Saka calendar. Time-line (A.D. and B.C.). Use of C.E. and B.C.E. 	 Showing a calendar and asking children to mark specific events / important days on it. Helping children to mark the birthdays of class mates with the help of a collage / poster. Providing a brief and basic introduction to the Gregorian and Saka calendars. Discussing and highlighting the differences between the Gregorian and Saka calendars. Explaining the use of the terms AD and BC and the newer terminology CE and BCE on calendars and presenting it through a timeline. Creating futuristic calendar Drawing pictures / writing articles / poems etc. Writing narratives. Providing opportunities for: Enabling children to design, use their knowledge and innovation and create a futuristic calendar. Giving them a situation to observe a day without a calendar or clock and writing their own narratives. Designing a board game: Observing one day for causes such as Respect, Honesty, Praise, Compassion Designing a calendar and marking days and events of their choice on them. Drawing pictures or writing articles, poems about important national days or events in that months 	Calendars –present day calendar, Saka calendar, school calendar. Charts. Flash Cards. Board games.

Integration: Mathematics (Measurement)

Theme 3: Responsibilities of a Good Citizen

'Responsibilities of a good citizen' is crucial as it aims to make children understand the importance of civic sense and their responsibilities as a citizen of India. In an urban society that also reflects a sense of alienation, children must be taught how to develop a sense of unity and belongingness in a community. Varied interesting pedagogies enable them to observe and understand how these concepts play out in the world around us.

Learning Outcomes:

Children will be able to:

- discuss the term civic sense, and appreciate its significance;
- describe and reflect on the term citizen;
- demonstrate respect towards public and private property;
- suggest measures for proper upkeep of public property;
- initiate responsibilities for solving issues in school and in neighbourhood.

Responsibilities of a Good Citizen **Suggested Transactional Processes**

Key Concepts/Concerns

- **Introduction to Civics**
 - Definition of: Civics, Civic sense, Citizen.
 - Importance of being a good neighbour and a good citizen.
- Responsibilities of a good citizen:
 - Participation in elections.
 - Caring for public and private place for example – schools, hospitals. Public transport, historical monuments, places of worship, parks, etc.

Encouraging the sharing of

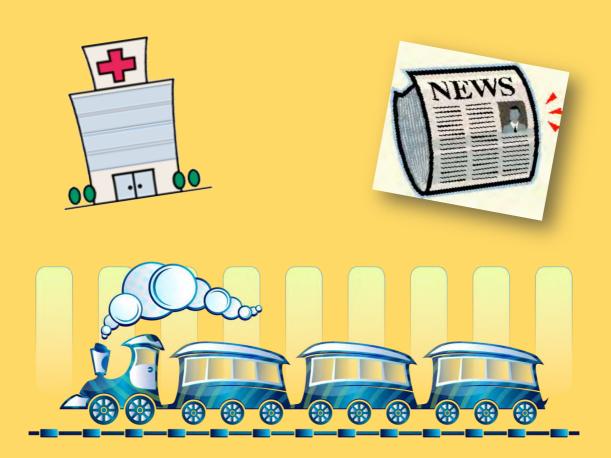
- experiences by children on studying together and helping one another.
- Facilitating classroom discussions on the meaning and maintaining of civic sense.
- Motivating children to adopt good civic habits in their daily lives.
- Analysing the need for caring for public property through classroom participation.
- Motivating children to create community awareness on cleanliness/road safety/value for work/ care for public property.
- Conducting group discussions in the classroom on the qualities of and expectations from a class representative or a prefect to make children understand their responsibility.
- Conducting class elections to choose a class monitor or a prefect.
- Report writing on the class elections.
- Encouraging children to research and gather information on the recent elections in their state, through newspapers and digital media.

Suggested Learning Resources

- Community awareness programs.
- Print (newspapers, books...) and digital media.
- Flash cards.
- Coloured sheets for activities.
- Slogan writing.
- Role play.

Responsibilities of a Good Citizen		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	 Providing opportunities for Activity Dividing the class into groups and giving them situations related to civic sense and good citizenship and having a discussion on what is civic sense and good citizenship. Facilitating the preparation and presentation through street play/slogan writing / skit / puppet show, etc. Slogan making and designing a logo with mission and campaigning for the class election 	

Life Skills: Developing good citizenship skills



Theme 4: The Earth – Its Movements & Forms

'The Earth- Its Movement and Forms' enables children to understand the concept of movements of the earth. It aims to generate awareness about the four realms of the earth i.e. lithosphere, hydrosphere, atmosphere and biosphere. It will also enable them to identify and mark the major land forms of the Earth on an outline map of the world. Scale and cardinal directions will be introduced which will enhance their mapping skill.

Learning Outcomes:

Children will be able to:

- identify axis, rotation and revolution of the earth;
- explain causes of day and night and seasons;
- differentiate the four domains of the earth;
- identify major landforms and water bodies;
- locate oceans and continents on the map;
- differentiate between physical and political maps;
- use signs and symbols on the map;
- identify the purpose of using different colour schemes on the map;
- use scale and directions in mapping.

The Earth – Its Movements & Forms		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
Motions of the Earth:	 Using a globe and torch to explain the rotation of the earth, day and night. Showing a video or diagrams to explain revolution. Discussing the four domains of earth using globe/model or PPTs with children. Explaining the difference between physical and political maps. Providing children maps to undertake mapping of landforms and water bodies. Marking and identifying continents and oceans on an outline map of the world. Discussing the utility and use of the scale on the map. Showing the use of different colours on a physical map of the world and explaining the purpose of their use. Taking children to an open area in the morning and helping them understand the directions facing the rising sun. Conducting class quizzes and providing worksheets to children to complete. Providing opportunities for: Making of models or charts to be made to depict the four domains Writing poems and organising activities on right and left and east, west, north and south directions. 	Globe Torch Videos/PPTs Maps Poems Hands -on activities Class quizzes

Integration: Science (Air, Light), Arts Education

Theme 5: Our State

'Our State' familiarizes children with the geographical features and climate of the state in which they live. It helps them identify the agricultural practices and major crops of the state. Children may be able relate to their own area with other parts of the state.

Learning outcomes:

Children will be able to:

- locate the state they live in on the map of India;
- locate the capital, important cities, landforms and rivers on the state map; learn about the climate (seasons), vegetation and agricultural crops;
- appreciate the cultural heritage of the state they live in.

Our Stata		
Key Concepts/Concerns	Our State Suggested Transactional Processes	Suggested Learning Resources
Location of States on the map of India. Neighbouring States/water bodies. State and its capital. Important cities. Land forms and rivers. Climate Vegetation Agriculture- Types of crops.	 Mapping the different states on the Map of India. Facilitating class discussions, showing videos or organising class trips to learn about the state capital. Identifying and naming the major landforms and rivers. Conducting quizzes on important features of the State. Showing videos and PPTs on the seasons, vegetation and crops-to be followed by a class discussion. Children discussing with elders and peer group on the important state festivals and in particular related to crops. Marking important rivers, mountains, hills, cities and the capital of the state on an outline map of the state by children individually. Assigning project work too small groups on the state (Writing a few simple lines about the state and attaching pictures). Organising Activities Local vegetables and samples of crops can be brought by the school or bought by children. Children can design name cards for them. 	 Map of India and the state (Physical and Political) Relevant videos and PPTs. Samples of crops and vegetables grown in the state. Videos /Audios on Folk songs and dances of the state. Information Brochures, cards and posters.
	 Children can bring picture posts cards about the state and display these on the class bulletin board. Children can learn a traditional folk song or a folk dance and perform it in class. They can compose and set music to a 	

Integration: Languages, Science (Human Body-Food we eat, Adaptations in Animals/Plants

Life Skills: Appreciate the Cultural Heritage

Theme 6: India – Unity in Diversity

India – Unity in Diversity familiarizes children with the diverse geographical features of the Indian subcontinent. They will be able to relate the geographical and socio-cultural features of the place in which they live with those of other parts of the country. Children would also understand and appreciate the similarities and differences in the lives of people living in different parts of the country.

Learning Outcomes:

Children will be able to:

- identify the major physical divisions of India;
- locate major mountains, hills, rivers, plateaus on the map of India;
- identify similarities and differences in the lives of people in India;
- appreciate unity despite diversities in their country.

India – Unity in Diversity		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
 ▶ India – Physical Divisions The Himalayas Northern Plains Peninsular plateau ▶ Major Rivers of India Perennial and nonperennial (Krishna, Kaveri, Mahanadi, Narmada, Indus, Ganges, Yamuna, Brahmaputra) ▶ People Population Language Festivals Food Habits ▶ Unity in Diversity 	 Locating and marking major mountains, hills, rivers and plateaus on the map of India. Encouraging the sharing of experiences of children on their visits to mountains, plains, water bodies, deserts etc. Discussion on the life of people living in mountains, deserts, plains etc. Discussion on effects of physical features of a place on density of population. Organising group work/projects on: Preparing a chart on different festivals and food habits of people living at different places in India. Searching and enlisting different languages spoken at different places in India. Discussing with children the factors that unite us despite diversities. Organising games, quizzes and puzzles on different rivers, languages, festivals and food habits of people. Preparing a menu card of important food items of the different states in India. Encouraging children to develop collages, poems etc. on the festivals of India. Celebrating different festivals in the school. 	 Map, Wall map and Globe) Games and puzzles Pictures and Videos of Different Festivals in India. Collection of Menus / Food items from different parts in India and food habits. Pictures of People from different states - their dress, and accessories etc. List of Important Mountains, Rivers, Languages spoken etc.

Integration: Languages, Arts Education

Life skills- respect, empathy, sensitivity, compassion

Theme 7: Pollution – Its Impact on the Environment

This theme aims at generating awareness and an understanding amongst children about the effect and impact of pollution on the environment. It will also emphasize the importance of potable water and its scarcity in different parts of the world and children will be made aware and sensitized to take initiatives to save water in their home and neighbourhood.

Learning Outcomes:

- discuss various causes of pollution in the surrounding/environment;
- enlist kinds of pollution (their causes and effects).
- identify the causes of pollution.
- enumerate the effects of pollution.
- sensitize the children about the importance of preventing pollution.
- suggest ways to reduce various kind of pollution.
- demonstrate sensitivity towards right methods of waste disposal.

Pollution – Its Impact on the Environment		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
 Pollution – meaning Causes, effects and prevention of pollution. Waste disposal (Conserving the environment, Reduce, Recycle and Reuse) Case studies of air, water and noise pollution. 	 Organising group discussions on children's own experiences on pollution. Showing videos about pollution followed by children sharing their views on the videos. Providing information on causes and effects of pollution. Encouraging children to discuss and analyse the information provided about causes of pollution and suggest methods to prevent pollution. Creating situations to discuss various methods for disposal of waste necessary for conservation of environment (Reduce, Recycle and Reuse) Assigning project work (groups/individually)to children on causes of pollution and action required on their part and that of others to improve the environment. Creating situations for children to creatively express their ideas about pollution and its effect by writing slogans, poems, stories and/or drawings/paintings etc. 	Classroom discussions. Narratives – experiences of teachers and children. Videos/PPTs Charts Project work Dustbins – for biodegradable and degradable waste Case studies

Pollution – Its Impact on the Environment		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	 Collecting news /information on the theme and analysing/discussing them. Motivating and organising a case study on air, water and noise pollution. 	
	 Providing opportunities for activities: Making of a group chart on the causes, effects and prevention of pollution Case study-water pollution in neighbourhood 	

Integration: Science (Air), Languages
Life Skills: Concern for the environment, care and concern for the resources





Topic 1: Computers – Storage and Memory device

A Computer system is a highly organised system that processes data which is a representation of facts, concepts or instructions. Processed data become information on which decisions and actions are based. Bits and Bytes are the basic units to represent data in the computer system. Computer data storage often called storage or memory is a technology used to retain digital data internally or externally. There are two types of memory – Internal and External.

Learning Outcomes:

Children will be able to:

- differentiate between the terms data and information;
- explain the purpose of internal and external memory;
- describe different data storage units;
- list the primary and secondary data storage devices.

Computers – Storage and Memory device		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Data vs Information Data storage units-basic facts Internal and External memory Primary and Secondary Storage Devices 	 Discussing about data and information related to real-life scenario by using a computer. Explaining the concept of memory and its capacity related to the size of the storage devices. Introducing the basic concepts of bits and bytes. Relating the units to digital system (ON and OFF). Providing opportunities for hands on practice to the children through online Worksheets 	 Physical memory devices/ visuals using IWB. Online Worksheets Online computer experiences.

Life Skills: General awareness

Topic 2: GUI Operating System – Desktop Management

The Graphical User Interface (GUI) operating system has a visual environment using windows, buttons, and icons. Using this interface, user can customise the wallpaper, screen/desktop, set time/date, etc.

Learning Outcomes:

Children will be able to:

- recall the features of OS and GUI;
- identify and use the Task Bar, Quick Launch Bar and short cut menu;
- customize the windows setup.

GUI Operating System – Desktop Management		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Recapitulation of the Topic	Conducting activities to:	Computer / IWB with GUI
done in previous class.	Explaining the use of different	operating system.
Usage of Quick Launch Bar,	task bars and customizing	Hands on experiences
Task Bar	windows.	Worksheet analysis by teacher.
Setting Date, time and volume	Observing children work	
of the speaker.	responsibly on the windows set	
Use of shortcut menu	up and providing a timely	
	feedback.	

Life Skills: General Awareness



Topic 3: Tools of Word Processor

Editing tools present in the word processing software are used to modify documents while Formatting tools are used to design how each page of the document will appear when it is printed. The printer is an output device (hardware) connected to the computer, that enables the user to take a hard copy of the files stored in the internal/external storage devices.

Learning Outcomes:

Children will be able to:

use various features of editing and formatting;

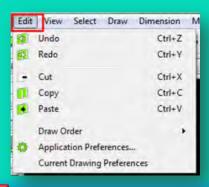
use shortcut keys;

prepare a document based on their requirement;

preview and print a document.

Tools of Word Processor		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Editing a document using Undo and redo commands checking spelling and grammar describing the purpose of using Thesaurus Formatting a document Font: Font size, colour, bold, italics and underline changing text alignment changing line spacing and paragraph spacing. Shortcut keys Using a printer for printing and print preview 	 Recapitulation of the activities done in previous class. Review of the features done previously. Demonstrating various tools related to Editing and Formatting Providing opportunities through hands-on-experience to each child /in groups on the computer/s by: showing sample documents, to prepare required documents using the features learnt discussing in detail the difference between editing and formatting. demonstrating the use of print preview and the steps for printing the document. explaining the use of shortcut keys. Children doing all the above. 	 Computer/IWB with a word processor software. Printer Hands on experiences – to work on computer

Life Skills: General awareness, Creative thinking, Decision making, Collaborative learning, presentation skills



Topic 4: The Internet - Web Browser

A web browser is a software which enables the user to interact with text, images, videos, music, and other information present on the internet.

The Search Engine is a software that is used to search information on the Internet. While searching for information using Search Engines, the user has to use the appropriate keywords. It is important to be more responsible and follow Netiquettes for safe browsing on the internet.

Learning Outcomes:

Children will be able to:

label the parts of a browser window;

define the terminologies related to Internet Network;

use appropriate keywords to collect information;

make responsible decision while browsing.

The Internet - Web Browser		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Network in terms of Internet	Recapitulation of previous	Computers/IWB with an
Basic requirements for an	learning on the Internet	internet connection
Internet connection	Explaining:	Worksheets
Parts of a browser window	the concept of Network through	
(address bar, refresh button,	role play.	
favourite, history, home, stop,	The parts of a browser window	
back and forward, new tab)	> terminologies	
Related terms like www, URL,	Discussing various search	
ISP, net surfing	engines and how to use them.	
Search engine	Discussing usage of appropriate	
	keywords to search	
	information.	

Life Skills: Work ethics, Decision making, Collaborative learning



Topic 5: Presentation Software – An Introduction

The presentation software is a software that enables the user to present information, graphics, videos, etc. through slide shows in an attractive way. This software ensures that important points are highlighted effectively.

Learning Outcomes:

Children will be able to:

explain the purpose of presentation software;

choose appropriate layouts according to the requirement;

create, add text and images to the slide;

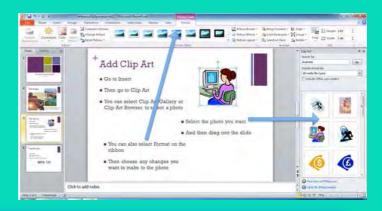
navigate between the slides;

present a slide show.

Presentation Software – An Introduction		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Introduction to presentation software and its purpose Opening and exiting a presentation software Components of a presentation software window. Concept of slides and its layouts Slide show presentation 	 Discussing the importance of presentation software as a group activity. Demonstrating how to: Prepare layouts of slides and its uses according to the requirements. create, save, and close a file open and edit an existing file insert a slide to a presentation add of text and images to a presentation Providing hands-on experience to children (individually /groups) for preparing a presentation on selected topics integrated with the curriculum/real-life scenario. 	Computers/IWB with presentation software.

Integration: Languages

Life Skills: Work ethics, Decision making, Collaborative learning, Creative thinking, Presentation skills



Topic 6: Step-Wise Thinking

Step-Wise Thinking helps in converting complicated tasks into simple steps, predicting the possible solutions to achieve the desired goal. For example - Planning and organising a birthday party, summer trip.

Learning Outcomes:

Children will be able to:

analyse the task;

break up the task into simple steps; predict possible solutions.

Step-Wise Thinking			
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources	
Reasoning and problem solving	Taking a real life scenario/ case	> IWB with presentation software	
– meaning	study, to plan a task.	Projector	
Case studies	Discussing with the children to	Case Study	
	break the task into small steps.		
	Dividing the class into groups		
	and assigning the same task to		
	each group to find the solution.		
	Suggested task could be -		
	Planning for a picnic/a		
	birthday party/visit to a park.		



Topic 7: Features of File Management

Folder is a location to store information in the computer. It is used to organize files and folders according to the user's requirements.

Learning Outcomes:

Children will be able to:

copy and move a file/folder;

rename and delete files and folders;

Inculcate habits not to tamper others' files or folders.

Features of File Management			
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources	
Copy and move a file/folder	Recollect the activities done in	Computer / IWB	
from one location to another	previous classes		
Rename a file/folder	demonstrating different		
Delete a file/folder.	operations of file management,		
Not tampering with others'	like copying, moving,		
files/folders.	renaming, deleting a file/		
	folder.		

Life Skills: Work ethics

Theme 1: Form

The theme "Form' is aimed at developing an understanding of line, shape and size of objects. The prime focus of this theme is to observe and identify lines and shapes in nature and in man-made objects from the immediate surroundings. Understanding of sizes such as: small, big, tall, huge, tiny etc., and creation of different forms with 2-D and 3-D materials. The process of identification of forms enhances skills, such as; observation, exploration, concentration and creative expression. Learning from this theme will be utilised for facilitating learning of language, EVS and Maths.

CLASSES – I to III

Learning Outcomes:

- identify and name different shapes of household objects, furniture items, buildings, plants and trees, etc.:
- draw and paint different shapes of different sizes on paper;
- make shapes of different sizes with clay;
- identify and draw lines namely; straight, curved, smooth, crooked, vertical and horizontal etc.;
- share and communicate (verbally and in writing) the details, i.e. name of the shape, size and line of objects;
- make images of objects, animals, trees, etc., using lines and shapes;
- identify the differences in sizes of objects, trees, buildings, etc., and create 2-D representation;
- demonstrate use of extended vocabulary related to theme;
- apply the experience of forms (in line, shape and size) with mathematics;
- engage and learn to observe and explore immediate surroundings for joy of knowing.

Theme – Form			
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources	
> Knowledge on Lines,	Providing opportunities for sharing	Children's own learning	
Shapes and Sizes.	personal experiences by children. Facilitating guided observation and	experiences related with	
Lines, Shapes and Sizes in plants, trees, in buildings	Facilitating guided observation and exploration of the school park/s,	their toys, household objects, pets, nature etc.	
and objects.	school building by the teacher.	Art Room with working	
Differentiation between	Initiating discussion on different	tables of appropriate	
shapes, sizes and lines,	shapes and sizes of objects in the	height	
their examples from	classroom and in immediate	School building and	
immediate surroundings	surroundings.	garden	
Draw and paint different	Providing opportunities to draw &	Picture cards on shapes,	
shapes, different sizes and label them.	paint, clay-model different forms,	sizes and lines. Drawing and painting	
Clay-model the form of a	using different shapes and sizes. Providing an opportunity to observe	Drawing and painting materials, drawing sheets	
table, box, house, etc.,	picture cards (flash cards) and	White board or classroom	
using different shapes.	matching their drawings and clay-	board	
Play quick games to draw	models for their appropriateness.	> Water colours	

	Theme – Form	
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
images of different shapes.	Discussing the differences between	> Potter's clay
	shapes, sizes and lines with the whole	Origami paper
Integration of art	class and in groups.	Apron and towel
experiences with	Ice-breaker on quick draw of shapes	
learning of other	and lines (10 seconds to each child)	
subject, such as;	using class-board/white board.	
language, EVS and	Involving children in origami activity	
Maths.	to creative different shapes.	
	Integration with other subjects:	
	Language Providing opportunities to	
	make poems, songs on shapes, sizes	
	and lines for developing verbal	
	expression.	
	EVS: Engaging children in the	
	upkeep of the classroom after the art	
	activity (to learn cleanliness,	
	beautification and working together).	
	Mathematics: concept of lines and	
	shapes, segregation and grouping of	
	triangles, rectangles, circles, etc.	

Life Skills: Cleanliness through participation, working together

CLASSES - IV & V

Learning Outcomes:

- identify different geometrical shapes in furniture items, school building, plants and trees and other objects.;
- draw and paint objects using different shapes of different sizes on paper;
- make objects using shapes of different sizes with clay;
- draw patterns using different lines namely: straight, curved, smooth, crooked, vertical and horizontal lines;
- ishare and communicate (verbally and in writing) the meaning of form;
- differentiate between geometrical and natural forms;
- demonstrate use of extended vocabulary related to the theme;
- link the experience and understanding of forms (in line, shape and size) with mathematics;
- engage and learn to observe and explore immediate surroundings for joy of knowing more.

	Form	
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Different geometrical shapes in furniture items, school building, plants & trees. Draw and paint different shapes of different sizes on paper. Create different forms with clay, Draw different patterns using straight, curved, smooth, crooked, vertical and horizontal lines. Linking the experience and understanding of forms (lines, shapes and sizes) with learning of concepts in other subjects. Observe and explore one's immediate surroundings for the joy of knowing more. 	 Providing opportunities to children for sharing their personal experiences related with the theme. Encouraging children to create different forms, such as, my school, the playground I like, my chair, my classroom, furniture in my bedroom etc. in drawing or/and painting. Engaging children in clay modelling on themes of common interest, such as; drawing room furniture, means of transportation etc., in small groups. Encouraging children to creating their own patterns on objects made with clay. Organising discussions based on placards/ pictures/video clips on variety of forms. Conducting exercises on 'Who is Quicker' in drawing of household objects (10 seconds to each child) using class-board/white board. Encouraging children to participate in Origami: to create birds, animals, aeroplane, boat etc. 	 Children's own learning experiences related to their toys, furniture items, school building and nature etc. Picture cards/ placards on different forms. Drawing and painting materials. Potters clay. Art Room with working tables of appropriate height. White board or classroom board/s. Water colours. Potter's clay. Origami paper. Apron and towel
	 Integration with Other Subjects: Language: Providing opportunities to make poems/ songs on objects to develop verbal expression. Science/SST: Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). Mathematics: concept of lines, angles of triangles, rectangles, square, circle etc. in Maths. 	

Life Skills: Creative expression.

Theme 2: Colour

The theme "colour' is aimed at developing an understanding of different colours on the one hand and developing aesthetic sensibility on the other. The prime focus of this theme is to observe and identify colours in nature and in man-made objects. Understanding relationship of certain colours with plants, flowers, fruits and nature. For example, leaf green, sea blue & sky blue, bottle green, lemon yellow etc. Creation of different shades by mixing of two different colours. For example; mixing of red and yellow in equal quantity will create orange colour. The process of identification and understanding of colours enhances skills, such as; observation, exploration, experimentation and artistic expression. Learning from this theme will be utilised for facilitating learning of language and EVS.

CLASSES – I to III

Learning Outcomes:

- identify and name different colours of household objects, furniture items, flowers, vegetables, fruits, plants and trees;
- paint directly on paper with liquid (water based) colours;
- draw images (dry colours) of their liking from the immediate surroundings and colour them in appropriate colours;
- create new colours/shades by mixing primary colours;
- demonstrate use of extended vocabulary related to theme;
- link the experience and understanding of colours with learning of language and EVS;
- engage and learn to observe and explore immediate surroundings for joy of knowing different hues and colours:
- feel better emotionally/internally after experiencing with colours of their choice;
- appreciate beauty in nature and in human-made objects.

I	Colour		
ı	Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
ı	Different colours: - identify	Providing opportunities to children	Children's own learning
I	and name them.	for sharing their personal experiences	experiences related with
I	Primary colours to create	on colours around them.	their toys, flowers,
I	different colours and	Facilitating through guided visits to	vegetables, fruits, pets,
I	shades – their uses	the school garden or children's park	plants & trees, etc.
I	Use of extended vocabulary	observation and exploration amongst	School garden /children's
П	related to theme.	children for seeing colours of nature	park.
I	Differentiation between	and collecting leaves, flowers, feathers,	Picture cards.
I	shades of the same colour	twigs, pebbles from the school	Drawing and painting
I	with examples from	grounds.	materials, drawing sheets,
I	immediate surroundings	Assigning children to see and draw	Pigment, Paints, Inks,
	Beautification of	vegetables and fruits at home/in	Dyes, Colours etc.
	surroundings using colours	kitchen garden/on fruit & vegetable	Cellophane sheets of red,

	Colour	
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
and coloured objects. Create small poems/ songs on colours Integration of art experiences with learning in other subjects, such as; language and EVS.	 cart and write name of the colours. Facilitating creation of picture cards by children. Encouraging participation of children in Hand painting with basic colours in small teams (each child using a separate colour), exploring new colours using cellophane paper of different colours. Demonstrating and discussing the creation of new colours and shades. Organising individual activity to use materials such as; sponge, straws, thread, pebbles etc., to play with colours. Providing children Opportunities to observe picture cards (flash cards) and match their drawings and clay-models appropriately. Facilitating children making Rangoli with leaves, flowers, sand, shells, coloured pebbles, etc. Integration with other subjects: Language: Facilitating the composition of a poem or song colour- wise. (Group activity) EVS: Rangoli to explain cleanliness and beautification of the places where we live. Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). 	yellow and blue colours. Thread, sponge, straw, etc. Art Room with working tables of appropriate height, slabs on sides. Boards for art displays. Aprons and towels. Water arrangements for painting.

Life Skills: Creative expression

CLASSES - IV & V

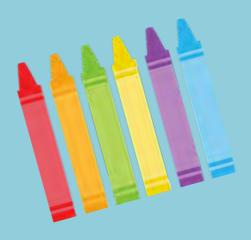
Learning Outcomes:

- identify and name different colours / shades of household objects, furniture items, flowers, vegetables, fruits, plants & trees etc.;
- drawing and painting images of their liking from immediate surroundings and colour them with their appropriate colours;
- create secondary colours and their shades by mixing primary colours;
- identify neutral colours and use them for creating tones;
- demonstrate use of extended vocabulary related to the theme;
- link the experience and understanding of colours with learning of language and EVS;
- feel better emotionally/internally after experiencing and expressing through colours;
- appreciate beauty of colours in nature and in human-made objects around.

Colour			
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources	
 Different colours and their shades/ tones: - Identify and name them. Draw and paint images of the child's liking and colour them with appropriate colours. Creation of Secondary colours and their shades by mixing primary colours. Neutral colours and using them for creating tones. Extended vocabulary related to the theme – their uses Tones of the same colour with examples from immediate surroundings. Beautification of surroundings using colours/ coloured objects. 	 Providing children opportunities for sharing personal experiences with colours around them and their likes and dislikes about certain colours. Conducting activities to emphasize on names of the secondary colours and shades of these colours. Encouraging children to keenly observe and explore nature to notice the variety of colours and shades in nature; leaves, flowers, feathers, twigs, fruits, vegetables etc., for making scrap book on colours. Using the created scrap books to discuss colours, shades and tones with children. Giving home assignments to children to draw & colour or click pictures of objects of same colour but with different tones or shade of that colour. For example; Green of spinach, of lady-fingers, of bitter gourd, of cucumber etc. Encouraging children to make their own colour chart. Organising discussions in groups on creation of new colours/shades and 	 Children's own experiences related to the colours. Scrap book on colours and shades. Exploration of the school garden /children park or any other places in the immediate surroundings. Picture cards on colours and shades of different colours. Drawing and painting materials, drawing sheets, pigment, paints, inks, dyes, powder colours, sawdust, sand, etc. Thread, sponge, straw, paper cuttings. Art Room with working tables of appropriate height, slabs on sides. Boards for art displays. Aprons and towels. Water arrangements for painting. 	

	Colour	
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	tones. Use sample cards. Ask questions such as; How do you make lemon green? What do you mix in red to get the colour pink? Organising individual activity to use variety of materials such as; sponge, straws, thread, pebbles, paper cuttings, etc., to play with colours. Encouraging children to make Rangoli with leaves, flowers, sand, shells, coloured pebbles, saw dust, powder colours etc.	
	 Integration with: Language: Facilitating to create poem/s on any one colour. (individual activity) Science/SST: Rangoli to explain cleanliness and beautification of the places where we live. Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). 	

 $\textbf{Life Skills:} \ \textbf{Beautification through participation}$



Theme 3: Texture

The theme "Texture' is aimed at developing an understanding of different textures and surfaces. The prime focus of this theme is to observe, identify and create textures. Understanding the relationship of certain textures with plants, trees, flowers, fruits, furs, feathers, wool, sand, fabric, etc. For example, fur is soft, sand is rough, bark of a tree is rough and thick, etc. Creation of different textures and surfaces by using mix mediums and materials. For example; sand painting, impression of bark on clay slab etc. Experiences with different textures can sharpen the sense of touch among children. The process of identification, understanding and creation of texture enhances skills, such as; observation, imagination, experimentation and artistic expression. Learning from this theme will be utilised for facilitating learning of language and EVS.

CLASSES – I to III

Learning Outcomes:

- identify and name different textures and surfaces of household objects, flowers, vegetables, fruits, plants & trees, animals, fabric, wool, sponge etc.;
- create new textures by mixing and pasting, different mediums and materials;
- demonstrate use of extended vocabulary related to theme;
- link the experiences and understanding of textures with learning of language and EVS;
- engage and learn to observe and explore immediate surroundings for joy of knowing different surfaces and textures;
- feel better emotionally after experiencing the touch of different textures of their liking;
- appreciate beauty and variety of surfaces in nature.

	Texture			
ı	Key Concepts	Suggested Transactional Processes		Suggested Learning Resources
ı	Different Textures. – identify and name them	Providing children opportunities for sharing their personal experiences on likes and dislikes about different	>	Children's own learning experiences related with their toys, flowers,
ı	Different materials to create different surfaces and textures – its uses	textures. Facilitating a 'Collection Walk' by children in and around school for		fabrics, vegetables, fruits, pets, plants, trees, etc.
ı	Extended vocabulary related to the theme – its	observation, and touching different textures and surfaces.Encouraging children to collect a	>	Guided collection walks of the surroundings.
ı	uses	variety of leaves, flowers, feathers, bark, pebbles, sand, sponge, feathers	>	Samples of different
ı	Narration on the differences between soft and rough, smooth and	and fabrics from immediatesurroundings.Organizing participation of children in	>	surfaces. Drawing and painting
	sandy textures and surfaces.	classroom games to identify different textures and surfaces while		materials, brushes, drawing sheets, glue,

	Texture	
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Create small poem or song on texture/s. Integration of art experiences with learning of other subject, such as; language and EVS. 	blindfolded. Discussing new textures. Conducting group activities with children to create different textures and surfaces making use of collected objects such as; leaves, flowers, feathers, bark, pebbles, sand, sponge, feathers, fabrics. Learning to take impressions of tree barks on clay slabs and imprinting one's own name to the surface created. Encouraging children to walk bare feet on sand, grass, wood planks, marble, carpet and narrate the feeling to peers in class. Making soft toys of a rabbit, cat, dog and dolls with soft materials with children individually and in groups. Exploring textures by walking on different surfaces in school. Integration with other subjects: Language: Facilitating the composition of a poem or narration of a story based on a soft toy that children have played with (individual activity). EVS: Learning to keep the immediate surroundings neat and clean i.e class, school and home. Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together).	sponge, pieces of different fabrics, sand, bark, wool, feathers, potters clay, etc. Art Room with working tables of appropriate height, slabs on sides Boards for art displays. Aprons and towels. Water arrangements for painting

Life Skills: Keeping surroundings Neat and Clean, working together



$C_{\text{LASSES}}-IV \ \& \ V$

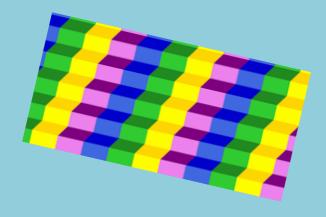
Learning Outcomes:

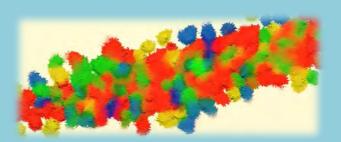
- identify and name different textures and surfaces of the household objects, flowers, vegetables, fruits, plants & trees, animals, fabrics, wool, sponge etc.;
- create new textures in 2-D and 3-D mediums and materials;
- demonstrate use of extended vocabulary related to the theme;
- link the experience and understanding of textures with learning of language and EVS;
- engage and learn to observe and explore immediate surroundings for joy of knowing and experiencing different surfaces and textures;
- appreciate beauty and variety of surfaces in nature.

Key Concepts S	Suggested Transactional Processes	Suggested Learning
		Resources
surfaces of the household objects, natural objects, textiles, etc. :- Identify and name them. Create new textures in 2-D and 3-D mediums and materials. Extended vocabulary related to textures: - its use	Encouraging 'Collection Walk' by children in and around school for observation, and touch of different textures and surfaces. Providing opportunities to children for sharing their personal experiences related to different textures and surfaces with peers. Drawing, painting and printing activities to create texture of stone, and wood. Developing collages and/or clay modelling with children for creating textures of wool and sand. Identifying textures and surfaces while blindfolded by children (group activity) with a bag full of mixed objects to explore with. Encouraging children to walk bare feet on sand, grass, wood planks, marble, carpet, jute mates, sponge sheets, wet and dry space and share/ narrate their experiences/feelings with peers in the class. Integration with other subjects: Language: Facilitation to create poem or story on	 Children's own learning experiences related with their toys, household objects, flowers, vegetables, fruits, plants & trees, animals, fabrics, wool, sponge etc. Samples of different surfaces. Drawing and painting materials, drawing sheets, Glue, sponge, pieces of different fabrics, sand, bark, wool, feathers, potters clay, etc. Art Room with working tables of appropriate height, slabs on sides. Boards for art displays. Aprons and towels. Water arrangements for painting

Texture		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	topic such as; 'I still remember that rough surface.' 'The comforting touch of my blanket.' etc. (individual activity) Science/SST: Cleanliness of the places where we live. Aesthetic sensibility towards diversity in nature. Engage children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together).	

Life Skills: Appreciation of Cleanliness, Creative expression and working together





Theme 4: Composition

The theme "composition', particularly in visual arts (painting, printing, graphic design, sculpture, installation, etc.) is meant for the placement or arrangement of visual elements and organisation of the space (2-D and 3-D both) in a suitable manner. The prime focus of the theme is on artistic placement of colours and forms, painting of landscapes/seascapes, composition based on seasons, sports, parks, situations, arranging patterns, making designs, installation of 3-D objects, etc. In the visual arts, composition is often used interchangeably with various terms such as design, visual ordering or formal structure, depending on the context. The process of visualizing and making composition enhances skills, such as; observation, imagination, experimentation,

communication and artistic expression. The prime focus of this theme is to observe and find out compositions in nature, and in human-made structures. It will also promote understanding the relationship of one object with another, of form with the colours, of objects with the overall theme and visual impact of the work of art. For example, in a composition of the 'Rainy Day', the form of clouds, the lines of falling rain drops, colours supporting mood of the weather and finally the visual impact of the composition, all are interrelated and interdependent.

Learning from this theme will be utilised for facilitating learning of Languages, EVS and Mathematics.

CLASSES – I to III

Learning Outcomes:

- identify different compositions of their liking from the immediate surroundings;
- arrange different shapes, objects, images on paper (2 D space) and on ground/slab/corner (3D spaces);
- draw / paint compositions on themes, such as; myself, my family, my school, park where I play;
- demonstrate use of extended vocabulary related to the theme;
- link the experience and understanding of composition with learning of language, maths and EVS;
- engage and learn to observe and explore immediate surroundings for joy of knowing different composition;
- feel better emotionally/internally after communicating and expressing through their arrangement of visual images;
- appreciate beauty in nature and in man-made objects around them.

Composition		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Different compositions	> Providing opportunities to children for	Children's own learning
from the immediate	sharing their personal experiences on	experiences related with
surroundings- Identify and	arrangements they observe around	arranging their toys, plants,
name them.	them.	furniture, different rooms,
	Organising discussions with children	including own room,
Different shapes, objects,	on their likes and dislikes on which	arranging idols during

Composition		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
images in 2 D space and in 3D space: - arranging them. Draw / paint compositions on themes, such as; myself, my family, my school, my park etc. Extended vocabulary related to composition: - its uses. Immediate surroundings for joy of knowing different composition: - Engage and learn to observe and explore. Learn to link the experience and understanding of composition with learning of language, maths and EVS.	 Suggested Transactional Processes corner at home, school, ground looks good and reasons for the same. Conducting guided visits to the school garden/children's park. Helping children make their own viewfinders with a thick sheet, card board or soft board. Facilitating observation, and exploration amongst children for seeing compositions in nature with the help of their view finders. Encouraging children as part of their home assignments to explore best corners/ scenes in their own houses, gardens and neighbourhood with the help of their view finders. Encouraging children to make their own compositions on simple themes, such as; myself, my family, my school, my park etc. Organising brain storming sessions on rearranging classroom boards and displays. Organising discussions on different 	
	compositions based on picture cards/placards. Examples should be related to the immediate surrounding of the child. Facilitating children to make border design/s using shapes/blocks/fingers and create patterns. Making Rangoli with leaves, flowers, sand, shells, coloured pebbles etc. Integration with other subjects: Languages: Facilitating children to freely narrate their own experiences on composition. Writing a few lines on own compositions. Mathematics: Understanding of shapes and patterns. Segregation and grouping of objects EVS: Making of Rangolis and explaining cleanliness and beautification of the places where we live.	Water arrangements for painting

Composition		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	 Composing short essays on myself, my family, my school, my park etc., within relevant units/chapters. Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). 	

Life Skills: Cleanliness, appreciating beauty and working together.

CLASSES - IV & V

Learning Outcomes:

- ☑ select compositions from the immediate surroundings, using the view finder;
- draw or paint compositions on themes, such as; festival/s I like, Hockey/Football/Cricket match, landscape, seascape.;
- compose poster and greeting cards;
- install 3-D objects in a given theme;
- demonstrate use of extended vocabulary related to the theme;
- link the experiences gained while creating composition, with learning of other subjects;
- engage with and learn to observe and explore their immediate surroundings for joy of knowing different composition;
- feel better emotionally/internally after communicating and expressing through their arrangement of visual images.

Ī	Composition		
ı	Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
I	Selection of compositions	Providing children opportunities for	Children's own learning
П	from the immediate	exploring and selecting compositions from	experiences related with
П	surroundings.	their immediate environment.	arranging their toys,
IE	Drawing and/or painting	Encouraging children to explore	landscapes/seascapes,
П	compositions based on	independently interesting locations in	furniture items in
П	themes/topics.	their immediate surroundings.	different rooms/ settings
I	Compose posters and	Doing a quick sketching of the selected	including his/her own
П	greeting cards.	compositions with pencil or with dry	room,
I	Install 3-D objects on a	pastels.	
П	given topic /theme.	Encouraging children to draw and/or	School garden,
	Extended vocabulary	paint compositions on themes, such as; my	children's parks,

Composition		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
related to composition — its use. Engage and learn to observe and explore immediate surroundings for joy of knowing more. Link the experience and understanding of compositions with learning in other subjects.	family, my school, festival/s, Hockey/ Football/ Cricket match of my school, landscapes, seascapes etc. Arranging idols during Poojas, special days, festivals etc. Guiding children to make their own viewfinder. Providing opportunities to children to create 3-D objects on themes, such as; furniture in my room, kitchen objects, garden furniture etc., and installation of the same. Brain storming with children on rearranging classroom boards and displays. Conducting discussions on age appropriate compositions. Examples should be related to the immediate environment of the child. Facilitating children in making border design/s using shapes/blocks/fingers and creating patterns. Facilitating children in making a Rangoli with leaves, flowers, sand, shells, coloured pebbles etc. Integration with other subjects: Languages: Facilitating children to narrate experiences on a composition. Writing a paragraph describing experience related to the compositions created. Science/SST: Relating a composition/s on; my family, my school, my playground, my city, etc., with relevant units/ chapters. Engaging children in the upkeep of the classroom after the art activity to learn cleanliness and beautification of the surroundings. Through group activities inculcating the value of cooperation and working together.	historical monuments, etc. View finder, Picture cards depicting different compositions. Drawing/painting materials such as paints, clay, adhesive, card board, Rangoli material, etc. Art Room with working tables of appropriate height, slabs on sides. Boards for art displays. Aprons and towels. Water arrangements for painting

Life Skills: Mutual respect for working together.

Theme 5: Tools and Techniques

The theme "Tools and Techniques' is aimed at developing an understanding of different tools and techniques used for experiencing visual arts. The process of knowing and working with tools and techniques enhances skills, such as; observation, experimentation, problem solving and free expression. The prime focus of this theme is to identify, experiment and understand the appropriate use of different tools, materials and techniques used for expressing through the visual arts. It will promote understanding the relationship of tools and materials with that of techniques. For example, soft brushes for water based colours, poster colours for block printing, inks and water colours for blow painting, poster colours for hand painting and finger painting, etc.

Handling of different tools and techniques. For example; Use of soft but flat brushes (of bigger number) for broader strokes, Round brushes for drawing lines of varied thickness, dry colours (pencils, wax crayons, pastels etc.) for drawing images, filling colours mainly on paper, glue for fixing of paper cuttings and collage making, slab method and coil method for clay modelling etc. Experience with different tools and techniques can sharpen their common sense and make them a confident user.

CLASSES – I to III

Learning Outcomes:

- identify and name different tools and techniques, such as; round brushes, flat brushes, scissors, roller/rolling pin, drawing, painting, printing, clay modelling, spray painting, origami, construction, paper craft, etc.;
- create art work using age appropriate tools;
- practice different techniques, such as; hand painting, thumb painting, blow painting, block printing, tearing pasting, paper folding, construction of small toys with wool, cotton and balloon, clay modelling with coil, slab and pressing and pinching, etc.;
- demonstrate use of extended vocabulary related to the theme;
- link the experience and understanding of tools and techniques with learning of other subjects;
- engage and learn to explore immediate surroundings for joy of knowing and creating with different tools, materials and techniques;
- feel better emotionally after learning to control and use of different tools techniques;
- appreciate beauty and variety of methods and materials of visual expression.

Tools and Techniques		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Age appropriate tools	Providing opportunities to children for	Children's own experiences
and techniques of visual	sharing their personal experiences on	of drawing, painting,
Arts, such as; round	their likes and dislikes about different	printing or playing with
brushes, flat brushes,	tools, materials and techniques seen,	sand, clay, papers or self-
scissors, rollers drawing	used or created.	found art materials.
& painting, printing, clay	Facilitating children's individual	Collection and display of

Tools and Techniques Suggested Learning Suggested Transactional Processes Key Concepts Resources modelling, construction, engagement with activities with tools and age appropriate art tools paper craft, etc.: materials from their homes and and materials in the class. Identify and name them. immediate surroundings. Collection and display of Create art work using > 'Demonstrating the use of tools and local specific /easily available tools and age appropriate tools. materials collected by children or Practice age appropriate materials in the art provided by the school and the techniques, such as; techniques that can be used. room/classroom. Facilitating the appropriate use of tools hand painting, thumb Samples of different art painting, blow painting, and materials for picking up the right techniques. Videos on age appropriate technique/s, such as; hand painting, block printing, tearing pasting, paper folding, thumb painting, poster colour painting, 'how to do' on different construction of small reverse technique with wax crayons, chalk techniques. toys with wool, cotton drawing, sand painting, use of pastel Drawing & painting and balloon, clay colours, taking impressions with spray materials such as- brushes, modelling with coil, slab painting, blow painting, thread painting, drawing sheets, dry and wet and pressing and block printing, tearing pasting, paper colours of different types, pinching etc. folding, construction of small toys with glue, sponge, pieces of Extended vocabulary wool, cotton and balloon, etc. etc. different fabrics, sand, related to the theme – Its Devising new tools, materials and new bark, wool, feathers, techniques by children. potters clay, etc. Conducting group activities to create clay Art Room with working Sharing of likes and dislikes on techniques models of common furniture items, tables of appropriate with reasons. household objects, animal etc., in coil, height, slabs for 3-D Composition of small slab and press and pinch technique. display on sides. Organising group activities on block **Boards for art displays.** poems or songs on printing for creating border of the Aprons and towels. classroom display boards, using block Water arrangements for made of sponge/ foam, buttons, nail painting head, wood piece etc. Facilitating children taking impressions of tree barks, coins and leaves on clay slabs for demonstrating the reverse techniques of taking prints. Helping in creating their own blocks for stamping. Integration with other subjects: Language: Assisting them in composition of a poem/s based on their brush, colour, block, objects created with clay etc. in small groups. EVS: Knowing our immediate surroundings. Engaging children for classroom display to learn cleanliness and beautification.

Life Skills: Creative expression, appreciating beauty and working together.

$C_{\text{LASSES}} - IV \ \& \ V$

Learning Outcomes:

Children will be able to:

- identify and name the age appropriate tools and materials;
- differentiate and describe different age appropriate techniques, such as; drawing, colouring, painting, pen & ink, block printing, 2-D and 3-D work, origami, coil, slab and pinching methods of clay modelling, paper masks, 3-D masks and puppets, simple crafts (local specific) rangoli, wall painting, etc.;
- create art works using age appropriate tools and techniques;
- demonstrate use of extended vocabulary related to the theme;
- create their own tools and techniques of visual expression;
- link the experience and understanding of tools and techniques with learning of other subjects;
- engage and learn to explore use of materials for joy of knowing and creating with different materials;
- appreciate beauty and variety of methods and materials for visual expression.

Tools and Techniques Suggested Learning Key Concepts Suggested Transactional Processes Resources Age appropriate tools and Providing opportunities to children for Children's own experience materials – identify and sharing their personal experiences on with different tools & name them. likes and dislikes about different tools, techniques. Age appropriate materials and techniques seen, used or Collection and display of techniques: - drawing, created. age appropriate art tools, Participating children's engagement in colouring, painting, pen & techniques and materials in ink, block printing, 2-D and the collection activities on tools, the classroom. Collection and display of techniques and materials from home 3-D work, origami, coil, slab and pinching methods and from immediate surroundings. local specific /easily Asking children question in the 'Do available tools and of clay modelling, paper masks, 3-D masks and you know?' format, such as; materials in the art puppets, simple crafts Name any 3 painting tools and room/classroom. Age appropriate samples in (local specific) rangoli, wall materials you have seen and used. picture or in video form, of painting, etc. Name any 3 printing Art works using age tools/materials you know. different art methods and Which collage materials did you appropriate tools and techniques. Drawing & painting techniques. like the most? Creation of own tools and materials: (dry and wet What precautions do you take techniques of visual while working ink & pen colours of different types, expression. technique? glue, sponge, pieces of Extended vocabulary What is Block printing? different fabrics, sand, related to the theme – its What is the difference between bark, wool, feathers, slab and coil method? potters clay, etc.) Likes and dislikes on What is Origami? What material Art Room with working techniques with reasons. do you use in origami? etc. tables of appropriate Facilitating the learning of new Composition of a small height, slabs for 3-D work

	Tools and Techniques		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources	
poem or song on tool/s of the child's liking. Integration of knowledge & experience of tools, materials and techniques with learning of other subject.	technique/s and use of new tools through demonstration method. For example; creating human face in press and pinch technique, create a geometrical block using soft surfaces (clay/cork/ potato/soft wood) etc. Making of a wall painting is another example which involves local specific tools, materials, motifs and composition. Organising discussions on imagining new tools, materials and new techniques. Encourage and appreciate creation of new tools. Conducting group activities on block printing for creating carpet design on large size paper, using block created by the team. Taking impressions of all Indian coins (in use) on clay slabs for demonstrating relief and reverse techniques. Integration with other subjects: Language: Encouraging them in creating a story of the brush / colour/ block etc. in small groups. Script of role play, such as; 'I am the brush', 'I am your new block' etc. (story making can cover it's making process, it's use, it's value, etc.) Science/SST: Knowing the immediate surroundings. Subject related themes can be selected for the art experience. Engaging children in the upkeep of the classroom after the art activity to learn cleanliness and beautification of the surroundings.	and display on sides. Boards for art displays Aprons and towels Water arrangements	

Life Skills: Appreciation of Beauty, working together

Theme 6: Art Vocabulary (Visual Arts)

The theme "Art Vocabulary' is aimed at learning and using appropriate names and terms related to art techniques, to hues and shades of colours, to tools and accessories used, to different mediums and materials and to the art appreciation. The prime focus of this theme is to know, to remember, and to use art related vocabulary appropriately. For example, block printing is done with the blocks, block printing is a technique which is used to take same kind of impression again and again. Soft paint brushes are used for doing water based colours, flat brushes (of bigger number) are used for broader strokes whereas round brushes are used for drawing lines of varied thickness, slab method and coil method are techniques of making 3-D objects with potter's clay, etc. Knowledge and experience of art vocabulary helps in better learning of the subject on one hand and effective communication on the other. The process of knowing and using appropriate vocabulary will enhance the communication skills of the learner.

CLASSES – I to III

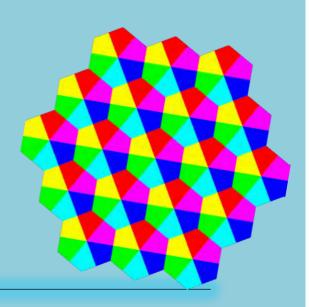
Learning Outcomes:

- identify and name different tools and techniques, such as; round brushes, flat brushes, scissors, roller/rolling pin, drawing, painting, printing, clay modelling, spray painting, origami, construction, paper craft;
- differentiate between painting and printing, soft and hard brushes, between coil technique and slab technique:
- narrate art experiences using appropriate vocabulary;
- practice different techniques, such as; hand painting, thumb painting, blow painting, block printing, tearing pasting, paper folding, construction of small toys with wool, cotton and balloon, clay modelling with coil, slab and pressing and pinching etc., with clear understanding of the art techniques and name of the materials to be used for that;
- demonstrate use of extended vocabulary related to the theme;
- link the knowledge of art vocabulary with learning of other subjects;
- appreciate beauty and variety of artistic expression using appropriate vocabulary.

Art Vocabulary		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Different tools and	Providing opportunities to children	Children's scrap book of
techniques, such as; round	and encouraging them to use	visual art tools and
brushes, flat brushes,	appropriate vocabulary while sharing	medium.
scissors, roller/rolling pin,	knowledge about different tools,	Samples of different art
drawing, painting, printing,	materials and techniques of children's'	techniques with
clay modelling, spray	liking.	appropriate titles and
painting, origami,	Organising discussions on samples of	elaboration.
construction, paper craft,	different art techniques with the use of	Collection and display of
etc.: - Identify and name	appropriate vocabulary.	age appropriate art tools
them	Providing opportunities to children to	and materials in the class.
Painting and printing, soft	make presentations on: my tools, my	Collection and display of

Art Vocabulary Suggested Learning Suggested Transactional Processes Key Concepts Resources and hard brushes, coil colours, my painting, my toy, my tree local specific /easily available tools and technique and slab etc. based on their scrap books. technique.: - Differences to Providing opportunities to participate materials in the art be stated. in the display of art materials, in the room/classroom. Drawing & painting Narration of art classroom. materials, brushes, drawing experiences using Engaging in the practice of different sheets, dry and wet colours appropriate vocabulary. techniques, such as; hand painting, Practice of different thumb painting, blow painting, spray of different types, glue, techniques, such as; hand printing, block printing, reverse sponge, pieces of different painting, thumb painting, painting, chalk drawing, sand painting, fabrics, sand, bark, wool, blow painting, clay use of pastel colours, clay modelling feathers, potters clay, etc. modelling with coil, slab Boards for art displays with coil, slab techniques, paper etc., with clear folding and mask making, painting understanding of the art and making of finger puppets, etc., techniques and name of the with clear understanding of the art materials to be used for techniques and name of the materials and tools being used. Extended vocabulary related to the theme: - Its Integration with other subjects: Language: Appreciation of beauty and Assisting children in composing variety of artistic poem/s on a painting of their liking, expression using on topics such as my brush, my appropriate vocabulary. colours, my etc. using appropriate vocabulary. Integration of art EVS: experiences with learning Knowing our immediate surroundings. of other subject. Engaging children to learn the upkeep of the classroom through cleanliness and beautification.

Life Skills: Creative Expression, Appreciate beauty



Classes – IV & V

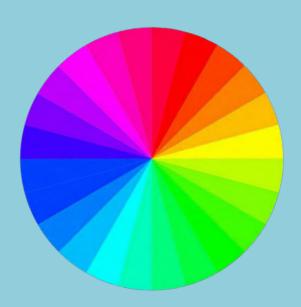
Learning Outcomes:

- identify different tools and techniques, such as; round brushes, flat brushes, hard and soft brushes, type of scissors, rollers/rolling pins, drawing & painting, printing, clay modelling, pottery, spray painting, Reverse techniques, origami, construction, Round and relief work, 2-D and 3-D work, paper craft;
- name terms/specifications of materials, such as; colours, medium of colours, water colours, pastel colours, neutral colours, shades and tones of colours, paints, background and foreground in the composition, landscapes, seascapes, lines of different types, shapes and sizes;
- narrate art experiences using appropriate (age appropriate) vocabulary;
- communicate their art experience with appropriate use of art vocabulary;
- demonstrate use of extended vocabulary related to the theme;
- link the knowledge of art vocabulary with learning of other subjects;
- appreciate beauty and variety of artistic expression using appropriate vocabulary.

Art Vocabulary		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Age specific tools and techniques (brushes, type of scissors, rollers/ rolling pins, drawing & painting, printing, clay modelling, pottery, spray painting, reverse techniques, origami, construction, round and relief work, 2-D and 3-D arts, paper craft, etc.): - Name and identify them. Terms/specifications of materials, such as; colours, medium of colours, water colours, pastel colours, neutral colours, shades and tones of colours, shades and tones of colours, paints, background and foreground in a painting or in a composition, landscapes, seascapes, lines of different types, shapes and sizes, accessory in the art room, etc: Name and identify them. Art experience using	 Providing opportunities to children for use of art vocabulary while sharing knowledge and experience of different art activities. Encouraging peer observations on all art activities to promote and practice art vocabulary. Organising discussions on samples of different art techniques, quality of materials value of art tools while using art vocabulary. Facilitating viewing of art video clips by children for quick observations. Giving opportunities to children to make presentations on my tools, my colours, my paintings, materials of my liking, my art room, paintings in my classroom, art work in school corridors, etc. This can be based on their scrap books. Organising visits to the museums, galleries, art exhibitions, local craftsmen, potter, etc. followed by writing of field experiences or an appreciation note on selected artefacts. Providing opportunities to children to participate in the display of art 	 Children's scrap book on tools and medium of visual arts. Children's portfolios on art activities. Samples of paintings, photographs, of selected compositions, slides, videos of art camps and exhibitions etc. Collection and display of age appropriate art tools and materials in the class. This also includes local specific and easily available tools and materials. Drawing and painting materials, potters clay, etc. Museums, galleries, art fairs, local craftsmen, potters, etc. Boards for art displays.

Art Vocabulary		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
appropriate vocabulary: - Narrate in own language. Communicate art experience with appropriate use of art vocabulary. Extended vocabulary related to the theme. For example, write an imaginary dialogue between colour and its shades, brush and sheet, potters clay and potter, etc its use. Artistic expression using appropriate vocabulary.	 Integration with other subjects: Language: Assisting children in creating poem/s stories on painting/s of their liking, by using appropriate vocabulary. Science/SST: Knowing our immediate surroundings. Engaging children in classroom displays, to learn cleanliness and beautification. 	
experiences with learning of other subjects.		

Life Skills: Appreciation of beauty, working together



Theme 7: Responding to the Artefacts and Nature

The theme "Responding to the Artefacts and Nature' is aimed at knowing, understanding and appreciating the beauty of nature and the artefacts. The process of responding to the artefacts and nature will enhance the skills of; observation, exploration, critical analysis and creative expression. The prime focus of this theme is to make children aware and sensitive towards beauty and value of natural, as well as human-made objects. The process of appreciation will sensitize their eye for aesthetics and will develop an attitude for accepting and appreciating different aspects of objects and situations.

For example; (i) block printing done by 'A' can be beautiful because it has nice pattern, (ii) printing done by 'B' can also be beautiful as it has been done with contrast colours, (iii) Printing done by 'C' can also be considered beautiful as all impressions taken are sharp and clear. Similarly, in nature; beauty of the trees, of the flowers, of shape and colour of leaves, of the butterflies, of the birds and their nests, of sky in different colours, etc.

CLASSES - I to III

Learning Outcomes:

- identify the objects, scenes and situations of their liking in the immediate surroundings;
- appreciate the aesthetics of art work done in class;
- appreciate nature and natural objects; such as trees, plants, flowers, animals, lakes, sea beaches, rivers, mountains, clouds, wind, rain, sun and moon, sky, parks, butterflies etc.;
- respond to the different kinds of artefacts;
- narrate their experiences of the art museum, by describing artefacts seen;
- demonstrate the use of extended vocabulary related to the theme;
- link the knowledge of appreciating and responding to nature and the artefacts with learning of other subjects;
- appreciate beauty and variety in nature and of artefacts.

Responding to the Artefacts and Nature		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
 Objects, scenes and situation of the child's liking in the immediate surroundings: - Identify them. Art work done by classmates – reflections. Appreciation of the nature 	 Encouraging children to appreciate their immediate surroundings with a critical eye. Motivating children to observe and share their views on trees, on clouds, on flowers, on butterflies, on rain, on birds and their nests, etc. Providing opportunities to respond to 	 Children's own experiences, likes and dislikes on natural objects and on artefacts, in the immediate surroundings. Work done by the child herself/himself and of all her/his classmates.
and natural objects; such as trees, plants, flowers, animals, lakes, sea beaches, rivers, mountains, clouds,	 the art work done by classmates and by oneself. Organising discussions on samples of different artefacts, based on questions, 	 School garden and school. Museum or / and art gallery Placards on different

Responding to the Artefacts and Nature			
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources	
wind, rain, sun and moon, sky, parks, butterflies etc. Different kinds of artefacts: - A brief description. A visit to a museum: - A description of the artefacts observed. Appreciation of beauty and variety in nature and of artefacts. Learn to link an appreciation of skill and reflect to nature and artefacts with learning of other subjects.	what do I see in this piece of art? what do I like about it? During a museum visit, children can be provided a well-designed worksheet to facilitate knowing of any one section. For example: How many toys are there in Indus Valley section?' Which toy did you like the most? Providing children with an opportunity to arrange their 2-D and 3-D work in the classroom and show appreciation of their work. Organising guided tour of the school garden and of different sections, to understand their value. Integration with other subjects: Language: Assisting them in composing and narrating a poem/s on any one of their paintings. Encouraging children to write 5 sentences on the things they like about butterflies/cats/rabbit /chicks etc. EVS: Knowing myself, my family, my neighbourhood. Making a list of things 'I like' and 'I do not Like' in my immediate surroundings. Engaging children to learn about cleanliness and beautification of the classroom.	objects and situations from nature. Children's scrap books. Samples/images of different artefacts. Collection and display of age appropriate art tools and materials in the class. Display boards with theme based displays.	

 $\textbf{Life Skills:} \ \text{Keeping surroundings neat and clean, appreciating beauty and working together.}$

CLASSES - IV & V

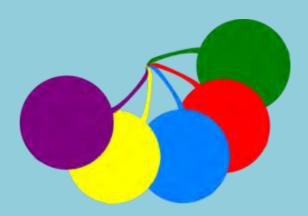
Learning Outcomes:

- describe the objects, scenes and situations of their liking in the immediate surroundings;
- respond to the good in art work done by their classmates and self;
- appreciate nature and natural beauty based on form, colours, composition, etc.; such as plants, flowers, animals, lakes, deserts, sea beaches, rivers, mountains, clouds, wind and rain, sun, moon and stars, rainy day, starry night, sunny day;
- describe artefacts of different kinds; paintings, pottery, terracotta and sculptures, installations, etc. of known artists;
- write their experiences of the art museum, by explaining artefacts seen;
- demonstrate use of extended vocabulary related to the theme;
- link the knowledge of appreciation and responding to the nature and to the artefacts with learning of other subjects.

Responding to the Artefacts and Nature			
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources	
 Objects, scenes and situations of his / her liking in the immediate surroundings: - a brief description. Art work done by oneself and classmates: - their reflections Nature and natural beauty based on form, colours, composition, etc.; such as plants, flowers, animals, lakes, deserts, sea beaches, rivers, mountains, clouds, wind and rain, sun, moon and stars, rainy day, starry night, sunny day, etc.: - An appreciation. Artefacts of different kind; paintings, photographs, pottery / ceramics, terracotta and sculptures, installations, etc. of known artists: - A brief description A visit to the art museum: - 	 Providing opportunities to children and encouraging them to explore and experience the beauty of nature and natural objects in their immediate surroundings. Conducting individual or/and group presentations of their experiences/appreciation on scenes of their liking. Providing opportunities to record and share self/ peer assessment of art activities/ experiences, periodically. Worksheet/s on appreciation of nature and its beauty and on specific theme/s, such as; plants, flowers, animals, lakes, deserts, sea beaches, rivers, mountains, clouds, wind and rain, sun, moon and stars, rainy day, starry night, sunny day, etc. Conducting Visual thinking sessions on paintings, photographs, pottery and ceramics, terracotta and sculpture, installations, etc. of known artists. Presenting a well-designed worksheet on museum and gallery visits to facilitate appreciation of any one 	 Children's own experiences, likes and dislikes on nature and natural objects, on artefacts and architectural sites in the immediate surroundings. Art work of every child in the class. Museums and Art Galleries. -Samples/replicas of artists work in 2-D and 3-D, pictures or videos of artists' work. Childrens' Scrap books. Collection and display of age appropriate art tools and materials in the class. Display boards with theme based display of children work and/or artist work. 	

Responding to the Artefacts and Nature			
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources	
Narration of the experience describing the artefacts observed.	section. For example, 'Make a sketch of the Harrappan terracotta, and describe its beauty in five lines'.		
Link the experience and skills with appreciation and learning of other	Providing guided tour to the museum/s and art galleries.		
subjects.	 Integration with other subjects: Language: Assisting them in illustrating one story from his/her course book. -Writing 10 sentences describing the weather in any one of your drawing/painting. 		
	 Science/SST: Knowing myself, my family, my neighbourhood. Encouraging children to make a list of things 'I like' and 'I do not Like' in my immediate surroundings. Engaging children in classroom display/s to learn cleanliness and beautification. 		

Life Skills: Appreciate natural beauty



Grade IV

മലയാളം

പഠനനേട്ടങ്ങൾ

പഠന നേട്ടങ്ങൾ

Grade - IV

- 1. വടക്കൻ പാട്ടുകൾ, തെക്കൻ പാട്ടുകൾ ഇവയിൽ വടക്കേ മലബാറിലെ നായന്മാരുടെയും തീയൻമാരുടെയും കഥകൾ വിവരിക്കുന്നം.
- 2. ഉത്തര കേരളത്തിലെ പ്രാചീന വീരഗാനങ്ങൾ മനോഹരമായ കൽപനകളും സംഘർഷഭരിതമായ സംഭവങ്ങളും ആഖ്യാനവും കൊണ്ട് ഹൃദ്യമാണ്.
- 3. പശ്ചിമഘട്ടത്തിൽ നിന്നാണ് കേരളത്തിലെ നദികൾ ഉത്ഭവിക്കുന്നത്.
- 4. പ്രകൃതി നമുക്കു നൽകിയ വിലയേറിയ അനഗ്രഹമാണ് ജലം.
- ആപത്തിൽ സഹായിക്കുകയും സഹാനഭ്രതിയോട് പ്രവർത്തിക്കുകയും ചെയ്യുന്നയാളാണ് നല്ല അയൽക്കാരൻ.
- 6. വൃക്ഷം തലമുറകൾക്ക് തണലും ധനവും നൽകുന്നു.
- 7. സംഗീതം, സാഹിത്യം, നൃത്തം, നാട്യം, മേളം തുടങ്ങിയ സുന്ദര കലകളുടെ സമ്മേളനമാണ് കഥകളി.
- 8. പച്ച, കത്തി, കരി, താടി, മിനക്ക് എന്നിവയാണ്

കഥകളിയിലെ വേഷങ്ങൾ.

- 9. ആഘോഷങ്ങൾക്കും വിനോദങ്ങൾക്കും മതസൗഹാർദത്തിന് പേരുകേട്ട നാടാണ് കേരളം.
- 10. കണ്ണകൊണ്ട് കാണന്നതെല്ലാം സത്യമാണ്, ചെവികൊണ്ട് കേൾക്കുന്നതെല്ലാം സത്യം ആയിരിക്കണമെന്നില്ല ഇതൊരു പ്രപഞ്ച സത്യമാണ്.
- 11. തുള്ളൽ പ്രസ്ഥാനത്തിന്റെ ഉപജ്ഞാതാവാണ് കുഞ്ചൻ നമ്പ്യാർ.
- 12. ഓട്ടൻ, പറയൻ, ശീതങ്കൻ എന്നീ മൂന്ന് വിധം തുള്ളലുകളുണ്ട്.
- 13. ഉണരുക, എഴുന്നേൽക്കുക, ലക്ഷ്യം നേടുന്നതുവരെ പ്രവർത്തിക്കുക ഇവയാണ് സ്വാമിവിവേകാനന്ദൻ തത്ത്വങ്ങൾ.
- **14.** രാജാരവിവർമ്മ യാണ് ആധുനിക ഭാരതീയ ചിത്രകലയുടെ പിതാവ്.